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CALIFORNIA

OIL WORLD

TWICE MONTHLY • SECOND ISSUE • JUNE, 1944

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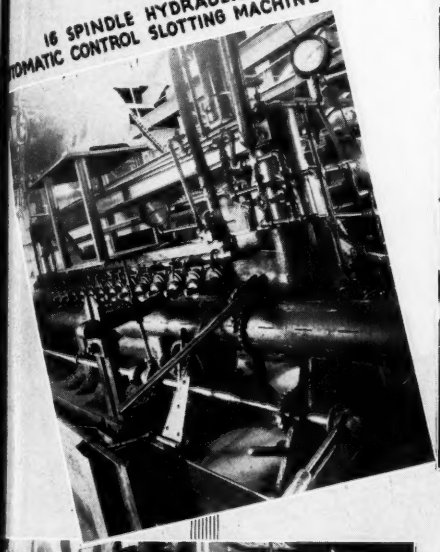
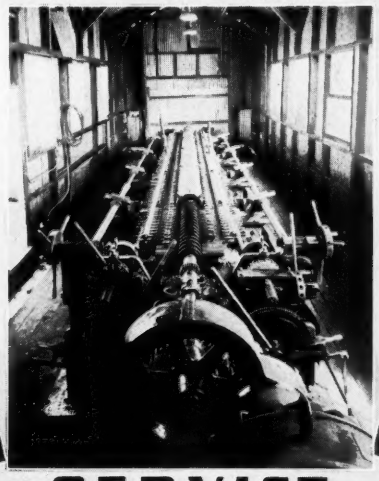
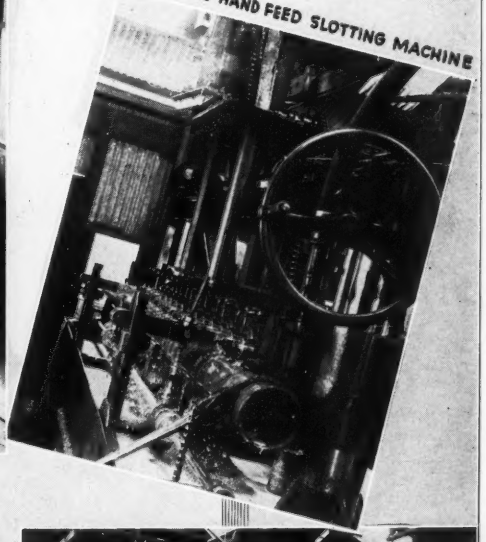


196 SPINDLE ROUND HOLE DRILLING MACHINE

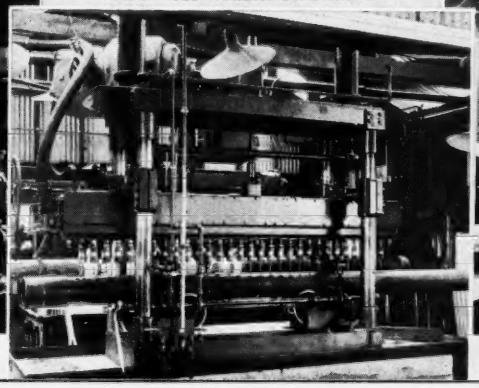


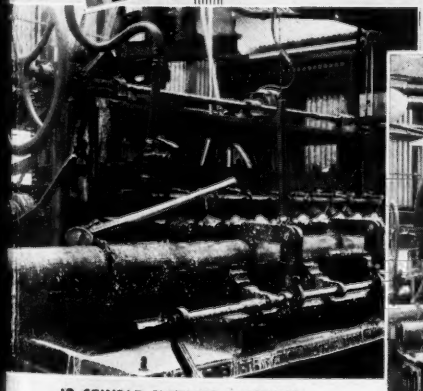
16 SPINDLE HAND FEED SLOTTING MACHINE



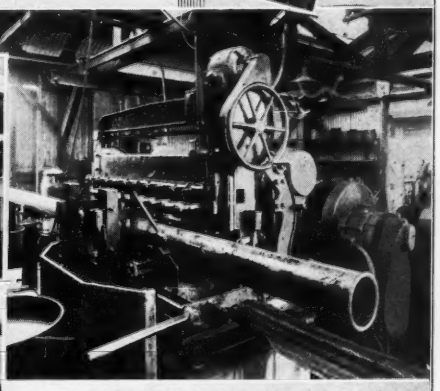
SERVICE

32 SPINDLE HYDRAULIC AUTOMATIC CONTROL ROUND HOLE DRILLING MACHINE





10 SPINDLE SLOTTING MACHINE



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CALIFORNIA
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June 28th, 1944
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Carrington Lung

The end of the road for supporters of a crude oil price increase was reached a few days ago, when valiant efforts to put through the Disney amendment to the Price Control Act were blocked in the House.

Following an earlier refusal of the Senate to "go along" on similar legislation, the measure that would have prevented the fixing of crude prices at less than 80% of parity went down to defeat in the Lower Chamber. The amendment had been adopted by the House, as a Committee of the Whole, by a vote of 123 to 57,—but when the Price Control bill came up, two days later for final passage, a separate vote was demanded by Representative Michael J. Bradley (D., Pa.).

Defeated 204 to 178, the Disney amendment did not reach conference.

Parity for all commodities has been established by the Bureau of Labor Statistics at 103.7. Oil prices are at 63.8 of parity. Wages are at 183.6. Raw materials are at 113.6. . . . The petroleum industry is left in a very unpleasant fix by the refusal of Congress to enact legislation making possible an average price boost of 35c per barrel.

This is not to say that proponents of the Disney proposition did not make a very fine case, during the one-hour-and-15-minute debate on the matter. The price increase—which was passed by the House, but not by the Senate, last year—would have had a far better chance if 1944 did not happen to be election year.

The author of the amendment, Representative Wes Disney (D,. Okla.), pleaded with his colleagues to support the legislation. Discovery of a barrel of oil now costs five times as much as it did in 1937, he pointed out, while drilling costs have risen six times above the average for that year. The big companies made less money in 1943 than they did in 1941,—$508,000,000 last year, as against $530,000,000 two years previously. And $200,000,000 of the 1943 earnings went into replacements and the production of oil.

"Now it is proposed that we have subsidies," Disney said. "Absurd notion of subsidies. I wonder where that came from. If you have subsidies the big companies will share 70 percent in the subsidies and the independents about 30 percent. These independents are being wiped out. I am not sure but what the doom of the independents is already signed and sealed. The big companies are the only markets for the independent properties."

Again and again, the House was warned that vitally-needed increases in oil production are impossible under present conditions and that the only incentive to new drilling and exploration must come in the form of a price increase. The Texas delegation was exceedingly vocal in favor of the amendment, but no California voice was raised during the debate.

The Office of Price Administration was soundly paddled by numerous members of Congress for its "hold the line" attitude against a price increase and for its subsidy proposals.

"There are some who favor trying to work this problem out administratively," said Representative Leon H. Gavin (R., Pa.). "I do not know why anyone should think that worth trying further. The OPA keeps right on saying they oppose a general price increase. They would not change if the gasoline ration was cut to a gallon a month and if every independent oil producer in the United States quit business. There is no use going back to see them any more. The matter has been before the OPA for nearly three years, and they sing the same song they did at the start. Promises, but no action."

The prediction that, if some legislation similar to the Disney proposal is not adopted, the petroleum industry in this country will belong to the big companies at the end of the war was made by Representative Ed Gossett (D., Tex.) who gave the following five reasons for his opposition to the oil subsidy program sponsored by OPA and Economic Stabilization Director Fred M. Vinson.

The subsidy program would set up a multiple price system for one community; would not stimulate the necessary exploration, nor increase supplies or reserves appreciably; will not save the independents; "Ignores the recommendations of every other responsible agency of

Ever Climb Down an Oil Well?

These Burmese natives are getting first hand information on pumping problems. Climbing down hand dug wells to scoop up oil in discarded tins, these *human pumps* know all about "corrosive action"... "temperature changes"... "fatigue limits"... and "wear resistance"—not to mention expense of "down time" when pumps must be pulled frequently. Axelson knows about these things, too—and has devoted half a century to solving the pumping problems of oil operators everywhere. The Burmese native's knowledge stops at 500 feet; but Axelson has always set the pace for deeper and deeper wells. Originating and pioneering the modern interchangeable liner pump has been only one step in Axelson's development of new and better pumping equipment. The enviable record of long, trouble-free service and high production under widely varying conditions the world over, is indisputable proof of Axelson quality.

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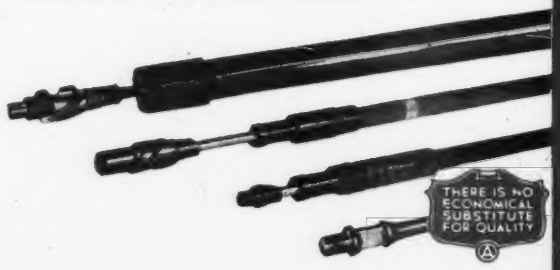

AXELSON

MANUFACTURES AND *SERVICES*

DEEP WELL PLUNGER PUMPS

AND SUCKER RODS

the Government and of industry" and would create "a vast and complicated administrative bureau requiring a small army of auditors, checkers, accountants . . . and will eventually cost as much as the overall price increase required by the Disney bill."

. . . Nine California House members, out of 23, voted against the Disney amendment. They were: Representatives Engle, Holifield, Izac, Outland, Poulson, Tolan, Voorhis and Welch.

So it will be some time before there will be any crude price increase,—at least through Congressional action . . . and it seems difficult to conceive of any other manner in which it could be successfully achieved. Probably nothing more will be heard of it (except through the Congressional Record, through whose pages Wes Disney will continue his campaign, and in the reports of Russell Brown, general counsel for the Independent Petroleum Producers' Association, who has conducted a top-notch drive for a crude price increase) until after November 7.

Fate of the price increase amendment was most discouraging to all segments of the industry. With an incentive so badly needed by the small producers, failure to adopt the Disney plan is regarded here as a mistake of major proportions. . . . And a mistake Congress one day may regret.

Its known as the Elk Hills Reserve Law, now. . . . That piece of legislation which finally ended a two-year headache for the Navy Department and Standard Oil Co. of California.

The bill which was almost literally booted through the House and Senate, in response to a demand from the Joint Chiefs of Staff for an increase in production from 15,000 to 65,000 B/D, was signed by President Roosevelt, June 17. But not without comment on what the President termed "legislative assumption of executive functions" contained in the measure. Some phases of the bill, Mr. Roosevelt said, "disregard principles basic to our form of Government."

Mr. Roosevelt's objections were aimed, principally, at provisions in the act which he said "would vest the Congress with what amounts to executive powers over the administration of the Naval Petroleum Reserves."

"By my action in approving this legislation, however," he said, "I do not wish to be understood as expressing my approval of all its provisions. On the contrary, I regret to say that in several particulars this act departs from principles of the Government which have been long established and which are, in my opinion, fundamentally sound.

"I feel it is my duty to express my concern lest this departure be continued in future legislation," his statement continued.

"The provisions of the Act to which I have reference would vest the Congress with what amounts to executive powers over the administration of the Naval Petroleum Reserves.

"This legislative assumption of executive functions takes form in two requirements, first, that the Secretary of the Navy, even with the approval of the President, may produce petroleum from these reserves only in the quantities from time to time specified by the Congress, and, secondly, that the Secretary may not condemn lands or enter into joint unit contracts, or other contracts and leases, without prior consultation with the Naval Affairs Committees of Congress.

"The first requirement, in addition to being objectionable from the standpoint of principle, was apparently drafted without proper cognizance being taken of the fact that an emergency necessitating a sharp increase in production might arise during a recess of Congress.

"The second requirement I would have considered unwise enough if it had merely placed the executive function of advising and consulting on contracts and leases in the hands of the two Houses of Congress. But to go further and to delegate, as it were, this function to two committees of the Congress is, in my opinion, to disregard principles basic to our form of government. Efficient and economical administration can be achieved only by vesting authority to carry out the laws in an independent executive, and not in legislative committees.

"This act, in my opinion, impinges deeply upon this fundamental principle of good Government embodied in the Constitution."

Differing widely with the President on the delegation of authority contained in the Elk Hills measure, Senator John A. Danaher (R., Conn.) expressed the fear the legislation was subject to change by Executive Order.

During debate on the measure, Danaher pointed out that, since Naval Petroleum Reserve No. 1 exists by Executive Order, the area involved should be specifically delineated in the bill to guard against change by a similar Order.

The President's signature of the Elk Hills bill ended, for Standard of California, a long and uncomfortable vigil in Washington. Most of the officials who have been camping out in the Capital through extremes of weather never encountered in Los Angeles or San Francisco, have left for the Coast. . . . The unit operations contract between Navy and Standard is understood to be about ready for the necessary signatures, —and then interest in giant task of speeding drilling on some 300 new wells will be transferred to Kern County. It is understood that Standard will need considerable help in spudding in the new wells, as the rush-job is sure to create a shortage of materials and manpower and outside companies probably will be called in to bid by the Navy Department.

With Congress ready to high-tail it to Chicago for the conventions, it is anticipated there will be little in the way of oil news emanating from Washington in the next few weeks. . . . Unless something develops from the resumed Anglo-American talks, or from the domestic oil situation.

It would be interesting, but foolhardy, to speculate on the manner in which the November elections will affect the oil industry. . . . And what will become of the OPA and other New Deal agencies if a Republican makes the grade. And the Office of Economic Stabilization, and a few others.

Perhaps, when both parties have selected their candidates and the campaign speeches start rolling,

(Continued on Page 15)

THE FIFTH WAR LOAN

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Supplies For Victory

By
*Claude P. Parsons,
Director of Materials,
Petroleum Administration for War

The title assigned for this address is short and to the point, but it could be more rightfully transposed to "Men for Victory — Materials for Men!"

Materials for young Bill, who may be your son or mine, who supplies the courage and the blood for victory.

In olden wars, we have often heard historical remarks that armies marched "on their stomachs". Seems like the accent was on food.

Napoleon ranged far, and the farther his foot-soldiers roamed, the more the accent on food. The staying quality of Washington's Continental Army was more dependent upon food than upon the powder-horn and musket. And the Blue and Gray of the Civil War tramped back and forth over the Mason-Dixon Line for four years "on their stomachs," so to speak. The accent on food began to shift during World War I when armies capable of marching on their stomachs settled down into trench warfare. A few planes roared overhead and tanks were born.

In today's global war the accent is definitely on petroleum, because more than 60 per cent of the tonnage of supplies shipped from our shores to our combat forces in the four corners of the world consists of petroleum products.

Now don't let me give you the impression that young Bill isn't hell-bent for the chow-line—no sir!

But where is Bill?

Chances are, he is moving all over the earth in some type of petroleum-fed war wagon.

There are so many airplanes flying to the four corners of the world that the oceans have become practically dehydrated. To the American Air Forces, oceans are merely wet spots between two landing strips. Petroleum-powered air invasion has been pounding at enemy bases for months, a softening-up process while the petroleum-powered Navy and Maritime pile up men and supplies for ground invasions.

Invasion for what?

Are we out for conquest and the setting up of an American empire?

The answer is no. Although we have the mightiest petroleum-powered force on earth, we are using it to liberate conquered peoples and return their own lands to them; and to protect our own land and people from the most vicious scourge of aggression the world has ever known.

That's why we have "D" days.

Overhead is an umbrella of swift, petroleum-powered air fighters. Petroleum-powered landing barges ram the shore lines and out pours Bill and the other brave lads who are carrying the brunt of man-to-man fighting. But along with Bill, petroleum-powered bulldozers move ashore to clear away the rubble, to fill shell holes and bomb craters, to smooth out landing strips. Petroleum-powered tanks are unloaded to move ahead of the men. Petroleum-powered trucks, bearing howitzers and ammunition, roll off the barges and, with low air-pressure in their petroleum-synthetic tires, roll up the sandy beach to a location where the howitzers can lay a barrage ahead of the brave lads who are fighting their way into the jungles of the South Pacific or through the camouflaged defenses on the European continent.

But that is Bill's job.

What is ours?

Petroleum Industry Has Job

We in the petroleum industry carry the great responsibility of providing young Bill with the amazing tonnage of petroleum life-blood for his mechanized units to enable him to move speedily over skyways, sea lanes, and beachheads in his unselfish service to liberate humanity. We must not fail!

To us, war supplies mean aviation gasoline for the air forces; gasoline and countless other petroleum products for the ground forces; fuel oil for the Navy and convoys; gasoline, fuel oil, and lubricants for war industries; ingredients for synthetic rubber; teluol for TNT; and a long miscellaneous list, from medicines to insecticides. The staggering tonnage of petroleum products needed for this war requires the drilling of thousands of wildcat wells; the domestic production of almost five million barrels of oil per day; the refining capacity to transform the crude oil into petroleum products; and transportation facilities to convey the crude oil to the refineries and the refined products to the distribution points where they go to Bill and his buddies.

To meet its tremendous responsibility, the petroleum industry must also have supplies, as well as the Army, Navy and Air Force which it serves. Or, as we call it, we must have MATERIALS!

Materials Needed

In general, it is obvious that during a mechanized war, manpower, raw materials, components, and certain completely fabricated items of equipment are in great demand by the military forces, and a critical shortage results in the supply of many items needed for essential civilian war activities. The petroleum industry, although playing such a vital part in today's mechanized, fluid warfare, has not generally been recognized as a direct part of the military force and therefore must obtain supplies in the general scramble for what is left.

Central Control

Without some central means of considering, weighing, and coordinating a balance between the armed forces and essential war industries in the matter of critical materials, there would be a chaotic scramble. Obviously, the result would be disastrous. The War Production Board was set up to provide this central medium to apportion the critical materials and fabricated items to the military forces and to various industries and individuals in an equitable manner based upon their re-

spective essentiality and urgency to the war program. Especially in a highly mechanized war like this one, relative essentiality and urgency between military activities and war industries is a patch-quilt of complexity. Certainly, there is no question about top ranking for Bill and his buddies in combat; but next to combat, some of the military activities are more essential and urgent than some of the activities of war industries, but some of the war industries are more essential and urgent than some of the military. And, to make matters more complex, the pattern shifts from time to time. Consequently, it takes constant watchfulness to even try to keep pace with it.

In an attempt to coordinate, and to bring the complexities out into the daylight, the War Production Board recognized the advantages of having each major branch of the military and each major branch of civilian activity represented by a specialized branch of the Government, to be known as a Claimant Agency. The general purpose of each of the agencies, now numbering thirteen in all, is to plan, claim, and expedite the materials for the activity it represents.

Controlled Materials Plan

The War Production Board, after first trying several other methods of apportioning raw materials to the various Claimants, tried out and established a procedure known as the Controlled Materials Plan. This plan has been very successful in providing each Claimant Agency with a means for planning an over-all materials program for critical raw materials, on a quarterly basis, for the activity or industry it represents; to present its quarterly program of requirements before the War Production Board with all the other Claimant Agencies, including the Military; and to plead their various degrees of essentiality and urgency until a final determination is made of the allotment of raw materials to each Agency.

After receiving a quarterly allotment, a Claimant Agency representing a war industry is charged with the responsibility of properly distributing and accounting for raw materials to companies and individuals on the basis of relative essentiality and urgency.

In addition to claiming and allocating raw materials, a Claimant Agency, together with WPB, must assist the industry it represents in removing shortages and bottlenecks in supply of critical components and completely fabricated equipment. This it does partly by individual expediting and partly by group meetings with other agencies before Divisions of the War Production Board.

The Petroleum Administration for War has been recognized by the War Production Board as the Claimant Agency for the petroleum industry. To function as such, PAW has organized a Materials Division and five major Operating Divisions representing the various branches of the petroleum industry: namely, Production, Refining, Supply and Transportation, Distribution and Marketing, and Natural Gas and Natural Gasoline. Each Operating Division, in cooperation with the petroleum industry, figures a quarterly program of petroleum operations and then, in cooperation with the Materials Division, estimates the amount of raw materials required. The Materials Division then compiles all of the estimates into a quarterly materials program for the entire petroleum industry and then prosecutes the program before the various Divisions and committees of WPB to the final determination.

In addition to claiming for raw materials for the various operating branches of the petroleum industry, the Materials Division also claims for the manufacturers of petroleum equipment. It also processes and obtains allotments of materials for construction projects such as refineries, pipe lines, repressuring plants, manufacturing plants, etc.

Raw Materials

How the raw materials flow from our allotments to the various mills, factories and distributors to petroleum operations is well known by you gentlemen of the oil equipment purchasing group.

So far, PAW as Claimant Agency for the petroleum industry has been able to keep the supply of raw materials in balance with an increasing petroleum program, but there has been no surplus. The petroleum production program has been one of gradual expansion from 16,000 wells drilled in 1942, to 19,000 wells drilled in 1943, and 24,000 to be drilled during 1944. We have provided raw materials for this program so far this year, and we expect to continue providing raw materials for this program during the balance of the year; but not without constant attention to details because the over-all materials situation remains tight, mainly due to shortages of manpower.

Steel Ingots

Even steel ingots are variously estimated as facing a decline of from five to ten per cent in capacity during the third quarter due to the manpower shortage. It is expected that other raw materials will be similarly affected by the manpower shortage during the third quarter.

You gentlemen are undoubtedly interested in knowledge of the current situation as to critical components and completely fabricated items, especially those which are bottlenecks in the oil fields. There will always be such bottlenecks from time to time so long as the war causes shortages in manpower and facilities. At present we are bothered with serious shortages in drill pipe, tool joints, internal combustion engines, heavy trucks, tractors, bearings, wire rope, lumber, manila cable, and several other items.

Third Quarter

During the third quarter, the petroleum program will get sufficient raw materials; but shortages will be felt in shapes, components and finished equipment, mostly due to the increasing shortages of manpower. There is general realization that manpower shortages in the foundry and forge industry is the basic cause of increasing shortages in many critical components and completely fabricated items. An official release from WPB, dated May 17, states that in the face of decreasing manpower, the foundries will be faced with 20 per cent higher war-equipment schedules by fall. "Our whole economy will break down," the release states, "unless we lick this bot-

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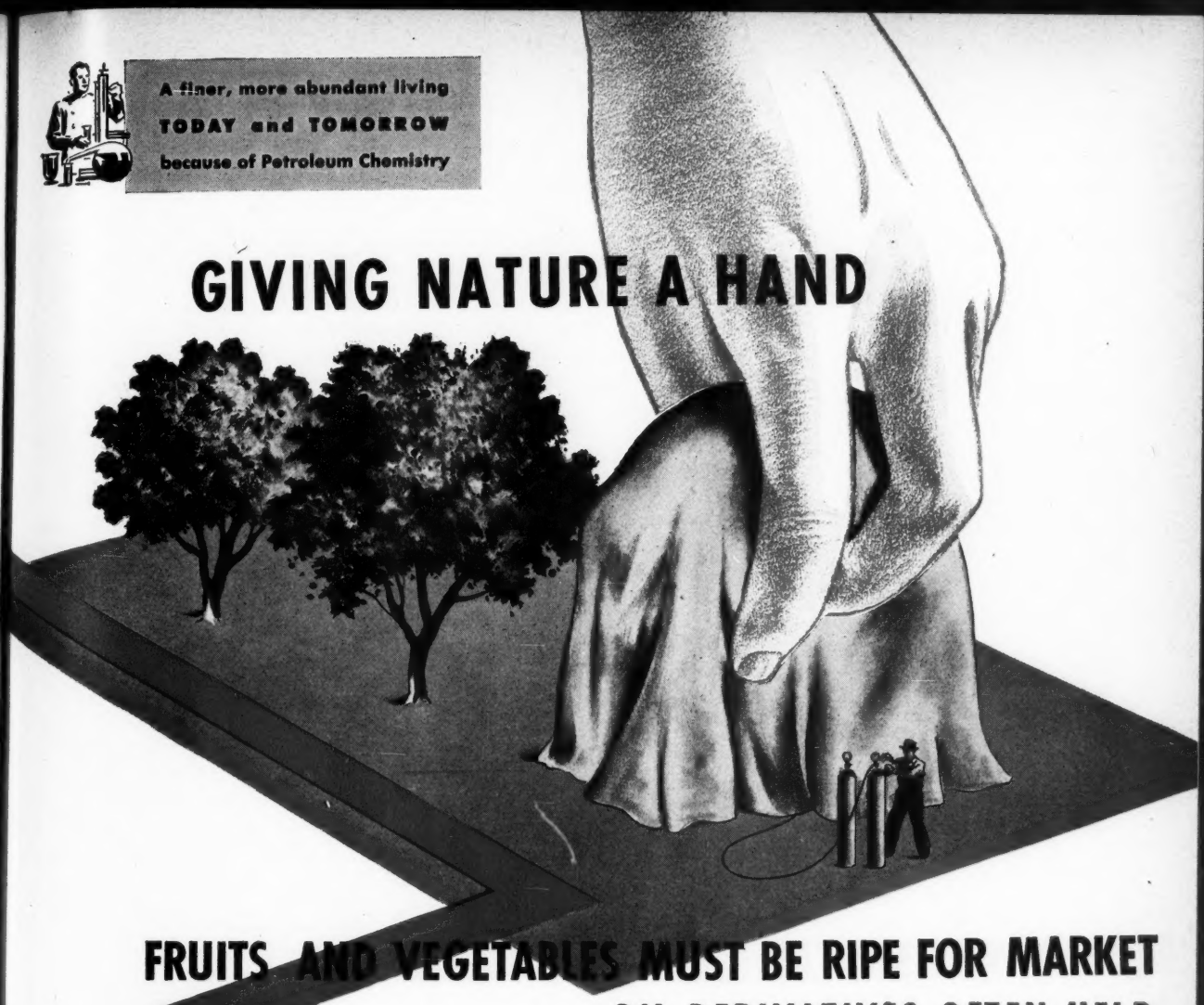
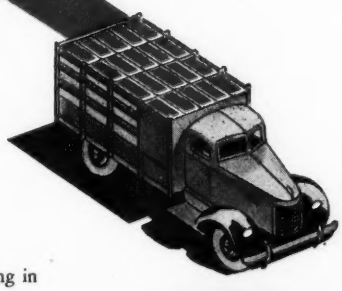


FRUITS AND VEGETABLES MUST BE RIPE FOR MARKET

OIL DERIVATIVES OFTEN HELP

The helping hand of the oil industry reaches out in many interesting ways. When a late spring makes the growing season short or an early frost threatens, the grower may cover his trees with a tent and inject oil-derived gas to accelerate the ripening of the fruit. Or he may dip many fruits and vegetables in liquid oil derivatives to hasten ripening on the way to market.

Another interesting product of chemistry is Tret-O-lite, which serves the oil industry in the dehydration of crude oil and water emulsions. Oil producers, everywhere, have long benefited by Tret-O-lite's effective, economical and fast performance—plus the competent services of Tret-O-lite field engineers.



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tleneck." Steps involving adjustments to frozen wages, to attract American unskilled and semi-skilled labor, and the importation of Mexican labor to clean castings, are under consideration.

Drill Pipe

Drill pipe continues to be tight, but is expected to ease somewhat by the end of the third quarter. The mills expect to continue producing at maximum rates during the second, third, and fourth quarters, as in the first quarter. If this expected production holds firm, the mills should have produced approximately 8,500,000 feet of drill pipe during 1944. No additional mill capacity is available and relief can only come by careful distribution and use of what is being produced.

Tool Joints

The tightness of tool joints continues, as indicated by a present backlog of 246,000 and a production of 7,500 joints weekly. Production is expected to increase gradually to 8,500 or 9,000 early in the third quarter. Additional facilities now under way should increase production to approximately 15,000 weekly by the end of the third quarter or early in the fourth.

Rock Bits

The manufacturers of rock bits are likewise increasing their facilities, and increased results should be felt during the latter part of the third quarter or early in the fourth. Meanwhile, the balance between supply and demand will remain very delicate.

Copper Products

The largest use of copper products by the oil industry is in the form of Admiralty metal condenser tubes in sizes ⅝, ¾ and 1" OD. The expected over-all productive capacity of the mills to manufacture tube and pipe has been over-allotted by approximately 23 per cent, but the Copper Division of WPB feels confident the mills can produce stated requirements for the petroleum program.

Bearings

Anti-friction bearings are still tight and the demand far exceeds the supply. Only the most urgent needs can be supplied and there is no indication at present that the situation will change for the better very soon. The Bearing Section of the PAW Materials Division will continue to expedite urgent petroleum cases. Since the Section was started in December 1943, 14,986 bearings have been expedited. During the past week, requests were received for expediting 12 different types and sizes and involving 244 bearings. Four bearings were for the repair of two drilling rigs; eighteen were for a refinery in Bahrein; four were for production of a pump required to complete construction of a 100-octane refinery.

Lumber

Lumber has reached a very critical stage and all possible conservation of its use should be exercised. During 1943, the use of lumber far exceeded the supply. To overcome this situation, the first step in lumber control has been taken by Order L-335. Under the Order, consumers who used more than 50,000 board feet in the last quarter of 1943, or who needed more than 50,000 board feet in either the second or third quarter of 1944, were required to file Application Form WPB-3640 by April 25. For a while at least, lumber for petroleum production operations is exempt from the Order, since it is already authorized. The filing of these Applications for other petroleum operations has now taken place and are being assembled for review by the Lumber Division of the War Production Board. PAW has submitted its estimate of the requirements for lumber for the petroleum industry in the second and third quarters of 1944 to establish a reserve for the industry. The War Production Board is assembling data on all lumber requirements for consideration with the estimated supply and will determine final allotments for each Claimant. This procedure is now in progress and allotments should be issued to the Claimants very soon. At that time, processing of the WPB-3640 Applications will be completed and authorizations will be forwarded to the applicants.

Manila Cable

All manila cable has been coming from a stockpile, there being no new production due to the loss of the raw material to the enemy. We have just been informed that henceforth the stockpile will be used exclusively by the Military. Sisal or wire line has not been acceptable as a substitute to eastern operators who are drilling in shallow, hard-rock territory. According to the drillers, wire line does not let the tools fall right and the stresses set up on the old drilling rigs shake them apart. Sisal is not rugged enough. We are endeavoring to get a continuance of supply but, as with all materials that come from a diminishing stockpile, petroleum operators are operating on borrowed time and substitutes must be studied, tried, and used.

Steel Buildings

Manufacturers of pre-fabricated steel buildings, such as steel belt and engine houses, meter and tool houses, booster stations, and oil derrick dog houses, may now resume the manufacture of such buildings by filing their CMP-4B applications with the Metal Building Materials Section, Building Materials Division, War Production Board. For the petroleum operator to obtain these buildings, it is only necessary that he conform to the requirements of PAC-11 with respect to authority to erect such buildings. Under PAC-11, a building which comes within the definition of lease equipment—that is, one which is located in or adjacent to any oil field—may be erected without the need to obtain any prior specific authorization. The order itself grants a blanket authorization. Furthermore, steps are being taken to further simplify other petroleum industry construction projects.

Trucks

The truck situation improved during April, with more than 400 new trucks of all types except the heaviest (6 x 6) going to petroleum production and refining operations. The general tightness can best be realized from the figures confronting ODT. For 1944, there will be a supply of only 88,000 trucks for civilian use, as compared with a 1941 demand of 700,000 and a five year prewar average of 450,000. Although

the situation showed improvement in April, it is obvious that ODT simply does not have enough trucks to keep the petroleum industry rolling. To follow up our recent survey, we have just worked out a plan with WPB, with full approval of ODT, to get more trucks produced for petroleum. The plan will be announced soon through our District Offices.

Internal Combustion Engines

Internal Combustion Engines — there's the hot potato of materials!

You have all heard about the ship's parrot who, after the transport was suddenly torpedoed and sunk, was standing on one end of a piece of driftwood studying a famous magician who was weakly hanging on the other end. Before the torpedo hit the transport, the magician had been entertaining the troops. He borrowed the ship's parrot and was holding it out at arm's length and was going to make it disappear. Then came the explosion and everything went black. When the magician came to, he was clutching the log. He looked up and there was the parrot, wearing a worried look. Presently the parrot opened up with, "Say, Mister, I got on to most of the tricks you did, but what-'n'ell did you do with that ship?"

That's about the way it goes with engines.

During the first quarter, there were 2,700 engines on manufacturers' schedules for petroleum operators and, so far as we can determine, 1,200 were received. It seems like every branch of the Armed Forces uses engines and can't get enough. In addition, there are engine manufacturers' bottlenecks that have hurt production. When the end of a month comes, the engines scheduled are simply not produced. WPB is now trying to make the schedules more realistic. Perhaps they will be based upon foundry casting capacity, because lack of sufficient castings has been a considerable factor in the problem.

On the other hand, reports show that engine repair parts have begun to flow through distributors to petroleum operators as the result of the AA-1 rating recently obtained for distributors and of the many contacts our engine section has made with engine manufacturers.

One way in which petroleum operators can help to eventually lick the engine problem is to enter purchase orders for their engine requirements through 1945. Schedules are now being filled for the second quarter of 1945 and unless orders are placed, there is a certainty that there will be no engines.

The above facts develop in daily contacts of the Materials Division with various Divisions and committees of the War Production Board and with other Claimant Agencies.

Without such facts, petroleum operators are thrown open to guesswork. Some operators who have had difficulty in obtaining materials may be overly pessimistic. Some, perhaps, have not understood the set-up of the Materials Division and therefore have not utilized the services rendered to the petroleum industry. On the other hand, many operators who have been getting a satisfactory amount of materials may become overly optimistic by not being aware that the satisfactory amount of materials received has been the result of careful planning, constant watchfulness, and work on the part of their Claimant Agency. Some may even feel that there is an abundance of materials and there may not be any further need for restrictions and allocations on the basis of essentiality and urgency. How we wish this were true!

Young Bill wants to go home — so do we.

Summary

In summary, while we have been able to keep the supply of raw materials in balance with an increasing petroleum program, there is no indication that in the third quarter the materials situation will become sufficiently easy for restrictions to be lifted at a faster rate than they have been lifted so far this year. We will, however, continue to lift them if the situation continues to become easier; but if materials become tighter due to manpower shortages and critical changes in the Military requirements, due to success or failure of the war program, we may even have to increase restrictions.

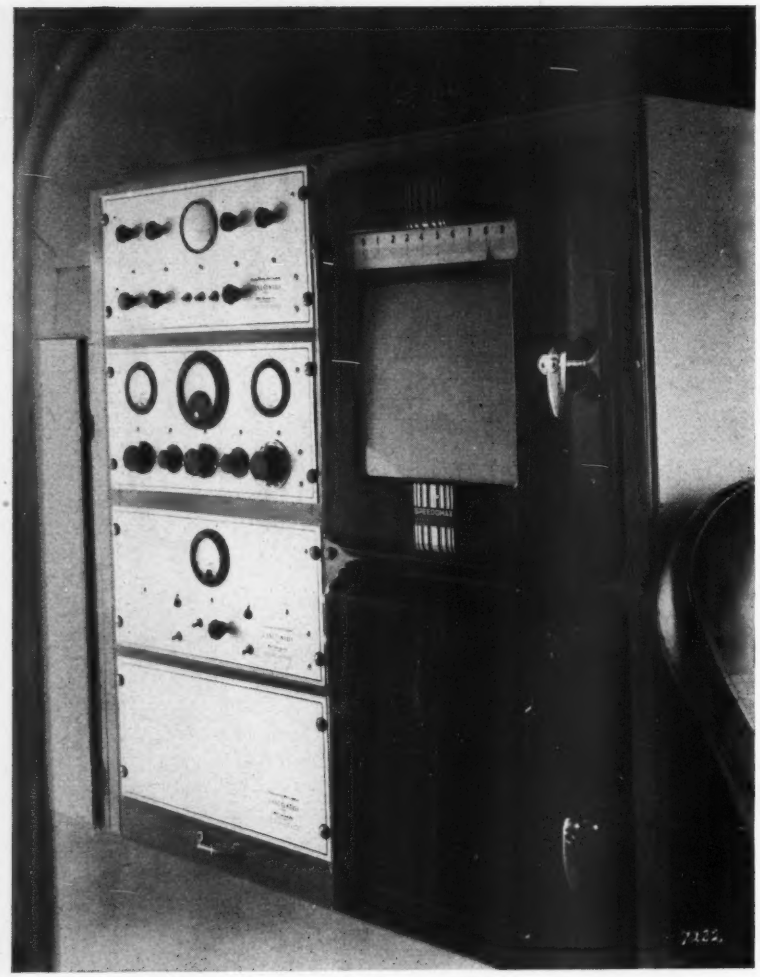
It must be remembered that our Military forces have not yet engaged in a major European campaign, and until the outcome of this campaign is known, the future status of materials will remain in doubt. For instance, it is reasonable to assume that the Army has already planned the provision of sufficient materials to carry on, assuming major military operations in the immediate future are successful. But, on the other hand, if serious setbacks should occur, the Military may come up with new demands not now foreseen. A good example of this is seen in the large and extremely urgent program launched a few months ago for heavy artillery and heavy gun ammunition.

From another angle, there are Claimant Agencies which have not been afforded the same degree of essentiality or urgency as the petroleum program, which ranks close up with the Military. These agencies have been repeatedly turned down on programs which they have submitted, but they are eagerly waiting to claim any materials made available by a cut-back in Military requirements. We must ever be ready to demand that the petroleum industry receives due consideration.

It is hoped that knowledge of the above facts and trends will help petroleum operators in some way to maintain their very difficult and very great responsibility to young Bill. Without 100-octane gasoline in the air, he would have to sacrifice the advantage of superior power. Without gas at all, what good is a P-38? An empty gasoline tank in any mechanized war wagon does no good for Bill. We must provide him with sufficient petroleum life-blood for his mechanized units so that we minimize his chances of needing plasma for himself.

•

* Address before Oil Company Buyers' Group National Association of Purchasing Agents, N. Y., May 30th, 1944.



The instrument panel in the field unit places all of the electrical controls and curve recording equipment conveniently before the operator.

Checking Your Ce

An operator is often confronted with well completion problems arising from the poor cementing of a string of pipe or from the ineffectiveness of successive squeeze jobs. A knowledge of where the cement actually lies will aid in better completions and this knowledge can be obtained by using Radioactivity surveys with carnotite in the cement. By means of a Gamma Ray Log taken after the carnotite cement is in place, the displacement and distribution of cement behind the pipe is readily determined by accentuated anomalies, or kicks, shown on the Log. The direct comparison of this log with one taken before cementing and recording the normal radioactivity conditions of the formations, or with an electrical log upon which the Gamma Ray Curve can be superimposed, will show the accentuated characteristics and provide for interpretation. It has been found, however, that a comparison made with a Gamma Ray Log run before cementing is more desirable than a comparison with an electrical log.

Carnotite, the material mixed with the cement for such an investigation, is a radioactive mineral. It is rather soft, canary yellow in color, and has a specific gravity of 4.1. It is also known as $K_2O \cdot 2U_2O_3 \cdot V_2O_5 \cdot 3H_2O$ hydrous potassium uranyl vanadate and is used for the production of vanadium, uranium and radium salts. Found in Western Colorado and Eastern Utah as an earthy deposit, it is evidently a secondary mineral derived from some pre-existing minerals. Because it has such radioactive constituents as potassium and uranium it is easy to understand its usefulness as a tracer in the cement of a squeeze job or of an oil string completion to determine the vertical limits and displacement of the cement behind pipe. Carnotite is mined as an ore and ground to powder, even to colloidal size if desired. It is fairly low in cost, the price varying with the amount purchased, and is obtainable in any quantity.[1] Storage does not affect or deteriorate the mineral in any way so a sufficient supply should be on hand if a series of surveys is contemplated because orders must be placed at least a week in advance and its availability against rig time must be given due consideration.

Operating Procedure

Before cementing operations are started, a standard Gamma Ray Log

[1]Two sources of supply of carnotite are: Hammer Laboratories, Inc., Central Savings Bank Bldg., Denver, Colorado; and Radium Luminous Corp., 10 East 40th St., New York City.

by JOHN L. P. CAMPBELL

When carnotite is used in the cement, the location of the set cement behind the pipe is readily determined by means of a Gamma Ray Curve. This is a recent application of Radioactivity Logging which has proved successful in determining whether or not the cement has been placed where intended.

ur Cement Jobs with RADIOACTIVITY LOGGING

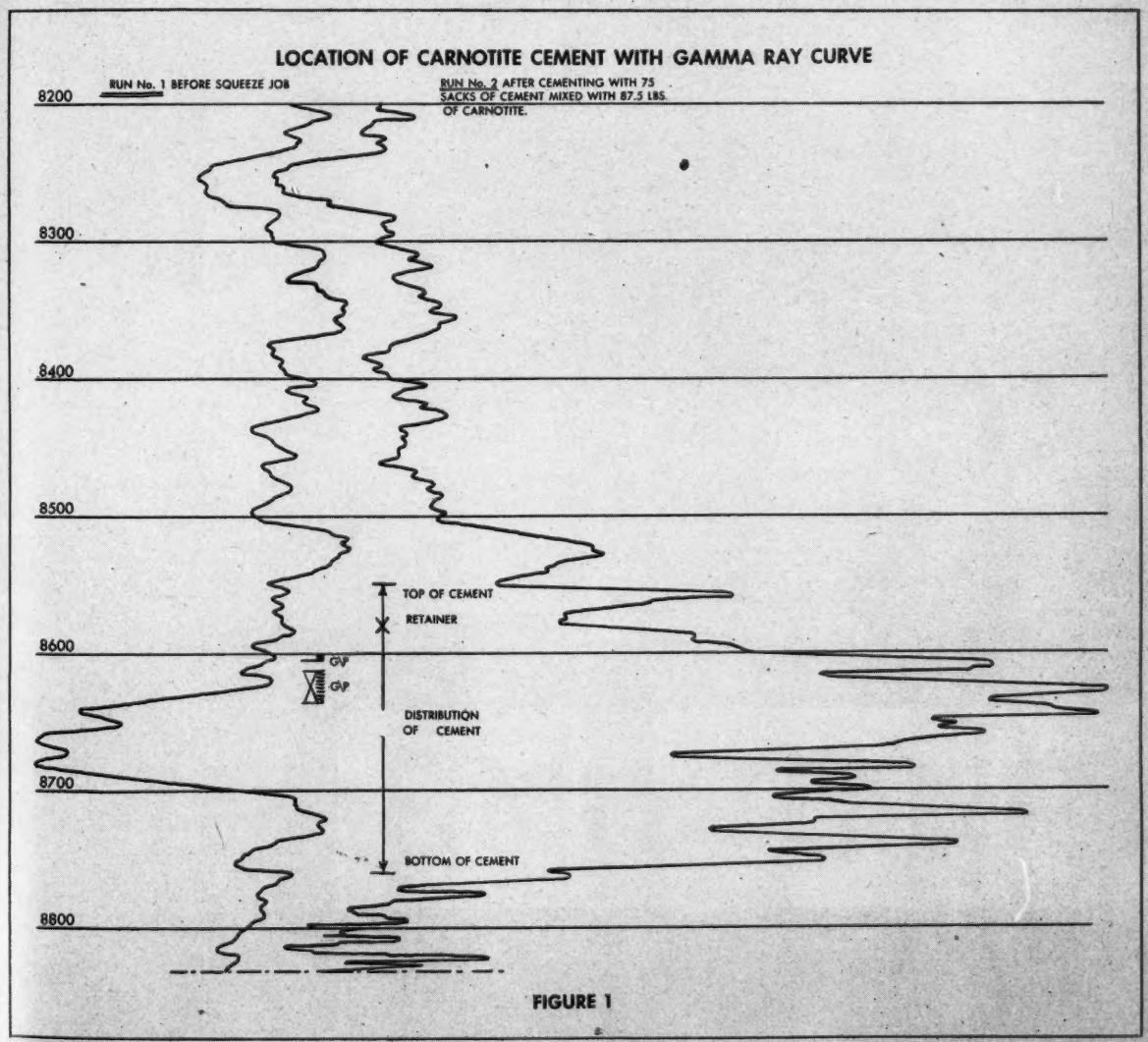


FIGURE 1

How to Prolong Life

The photograph above shows a sure fire way for extending life of the drill pipe and protecting the casing. In many cases, years of service are being added to the life of the drill pipe with the use of Patterson-Ballagh Protectors, the standard with almost all *careful* operators. Now made of PBX, a synthetic rubber which provides, for the first time, resistance to *oil, gas* and *sunlight*. Now, too, a new patented feature—LIPS have been added which streamline the Protector, add gripping power and reduce "ringing" of the drill pipe.

With few exceptions, wells deeper than 10,000 feet have been and are using Patterson-Ballagh Protectors. By their use, vibration, the arch enemy of oil field equipment, is appreciably reduced. If you are not *now* using Patterson-Ballagh Protectors, it will pay you dividends to investigate. Write for more detailed information.

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is run to provide a reference curve and to define the formations through which the cement is to extend. This curve is more desirable than an electrical log because shales vary in gamma ray intensities. The carnotite cementing job is then performed.

The first five or six sacks of cement are dumped into the hopper without the addition of carnotite; this allows the water and cement to mix and prepare for the carnotite-cement mixture. Because of the specific gravity of the carnotite this is important since otherwise the carnotite would precipitate before reaching the well. Approximately 1 lb. of carnotite is then added to each succeeding sack of cement. In the case of a squeeze job, the mixture squeezed behind the pipe can be followed by neat cement slurry without loss to the survey because the carnotite cement will have contacted and deposited a portion of the carnotite along the face of the wall in the bore hole. The amount of carnotite employed should be determined by the squeeze job. Very good results have been obtained by using approximately 1 lb. of carnotite per sack of cement which is about 1 per cent by weight.

After the cement has hardened and any excess remaining inside the casing has been cleaned out, a repeat Gamma Ray Curve of the same sensitivity as the first run is made. By comparing the two Gamma Ray Logs the location of the carnotite is readily apparent because of the increased gamma ray intensity recorded opposite the section containing the carnotite. Where the cement has gathered in pockets or cavities of the formation, the carnotite, in proportion to its mass, will cause strong positive reactions that will result in abnormal kicks on the Log. Where there are no pockets of concentration the higher intensity values of the second curve will be comparable in exaggerated form to the lower intensity values of the first curve, the higher intensity values of the second curve naturally indicating the presence of the carnotite.

The use of Radioactivity Logging with cement mixed with carnotite has thus made another step forward in the solution of oil well completion problems. By employing carnotite, not only have the upper and lower extremities of the cement behind the pipe been found but also its concentration in relation to the formation has been located as well. Where difficult completion due to cementing is concerned, the use of carnotite with Radioactivity Logging can be suggested as a procedure worthy of investigation. The results obtained by such surveys have been very gratifying to date but can best be illustrated by the records of an actual job.

The two Gamma Ray Curves shown in Fig. 1 were taken in a well in which gun perforations were squeeze cemented. The curve on the left is the log run before cementing and shows the sand in relation to the shale above and below. After this log was taken, the previously shot gun perforations from 8600 to 8606 feet and from 8614 to 8637 feet were squeeze cemented.

At the time of the squeeze job the mud was conditioned and had a weight of 9.9 lbs. per gal. (74 lbs. per cu. ft.) and a funnel viscosity of 40 seconds. The squeeze was performed through a cement retainer and 6½ bbls. of water were pumped in ahead of the cement with a maximum pressure of 4700 p.s.i. Carnotite cement was used and the proportions of carnotite to cement were as follows:

No carnotite with first 5 sacks of cement;

1½ lbs. of carnotite per sack with next 35 sacks of cement;

1 lb. of carnotite per sack with next 35 sacks of cement.

This was followed by the necessary amount of cement mixed without carnotite to finish the job. The maximum pressure required to perform the squeeze was 5100 p.s.i.

After waiting 24 hours for the cement to set the plug was drilled up and the hole conditioned for the second Radioactivity Log. The Gamma Ray Curve then taken is shown to the right in Fig. 1. By direct comparison and correlation the discernible top of the cement was found to be at 8550 feet and the bottom at 8760 feet. The entire distribution of cement was found to cover 210 feet and it is interesting to note that the cement extended 123 feet below the bottom perforation and 50 feet above the top perforation. The greatest concentration was at the perforated zone itself, which was naturally expected. The travel of cement below as well as above the gun perforated zone is of material importance because the same has occurred on every job to date.

This application of Radioactivity Logging with carnotite cement has its value in any difficult squeeze job, particularly in a multiple sand field, as brought out in a previous discussion[2] wherein it is stated that "in widely separated productive zones, it is possible to show extent of vertical distribution; and in multiple zones to show whether the attempted squeeze covered all the sands to be tested, or collected in a pocket or cavity. Although the radioactive material and cement is pumped into the well at a constant rate, the mass distribution behind the pipe is not empirical as proved by caliper surveys. Washed-out sections will accumulate mass and their increased 'anomalies' on the survey show this mass and vertical distribution. When the top of the squeeze is reached, there is a noticeable shift to the left on the log (surveying out of the hole) and a comparable similarity to the electric log or former Gamma Ray of the balance of the hole to the surface. This application is particularly useful in cases where trouble is encountered in obtaining a successful squeeze job."

[2]"Radioactivity Logging Provides Valuable Data for Gulf Coast Operations" by James D. Hughes, *Tomorrow's Tools—Today!*, Fourth Quarter 1943, Vol. IX, No. 4.

(Reprinted by courtesy Tomorrow's Tools—Today)

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To attain fast, economical drilling, you must have a rotary machine which can deliver the goods. It must be sturdy, perfectly machined and lubricated for quiet, efficient free running. It must be adequately sealed against loss of lubricant and entrance of foreign matter and must embody safety features for trouble-free operation.

The Emsco line of Rotary Machines includes lighter machines for drilling shallow or medium depth wells and larger machines for the deepest drilling and the heaviest work. Outstanding features are the fabriform base which offers greater strength with less weight; totally enclosed and flood lubricated with double tongue and groove labyrinth seal between table and base; inspection ports for interior examination and flushing; preloaded main bearings; machine cut, flame hardened gears; central alemite lubrication. You'll find that regardless of size or type Emsco Rotary Machines give fast, trouble-free drilling.

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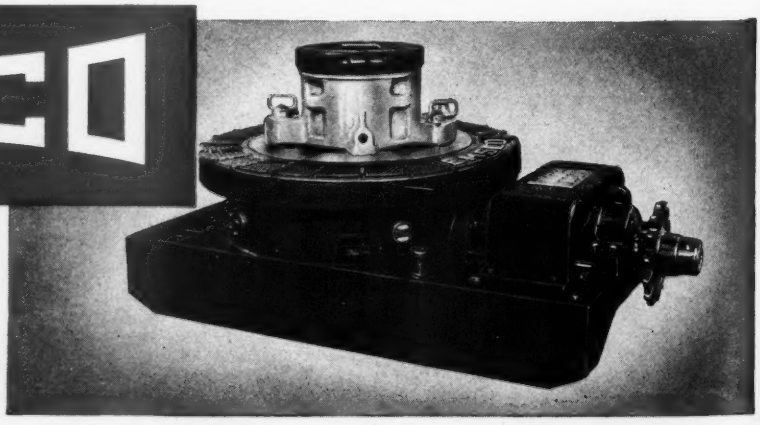

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Carrington King

(Continued from Page 3)

there will some indication of what to expect in the autumn.

Indefinite postponement of the Maloney Committee (Senate Special Oil Resources Committee) was seen when Chairman Francis Maloney (D., Conn.) revealed he had received "satisfactory assurances" from the Administration that no agreement for the Saudi Arabian pipeline or on other foreign matters would be made "without timely notice to the committee".

The Senate group, upon this reassurance, announced it would delay public hearings pending further Anglo-American negotiations on the proposed trans-Arabian line.

Unofficially, it was said that the promise of no Government action without notification of the committee came from the White House, through intermediaries. The Maloney group was planning to investigate and make public all angles of the foreign oil situation to forestall action that might be detrimental to national interest, but now appears content to wait for further developments.

In this connection, Leo T. Crowley, Administrator of the Foreign Economic Administration and a member of the Board of Petroleum Reserves Corp., told a House Appropriations subcommittee last month that he favored postponing the making of any national commitments until the Senate committee could be heard from. Asked by Representative John Taber (R., N. Y.) if no final contracts would be concluded until after the Senate investigation, Crowley said:

"So far as I am concerned, I certainly would not do it, and I am the one who controls the funds, until after the Senate has completed its hearings. I think we should wait and see what their wishes are in the matter."

After receiving the Administration assurances, Sen. Maloney revealed that the committee voted unanimously, in executive session, to defer the hearings pending the second series of Anglo-American petroleum discussions.

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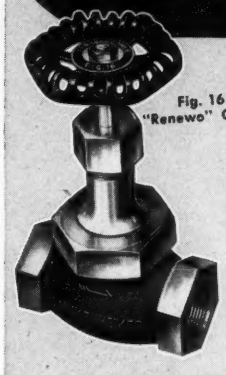

Fig. 16 "Renewo" Globe

Fig. 1640 "King-clip" Gate

Fig. 2125 Bronze Gate

In the heavy duty that Lunkenheimer Valves are doing on every front—industrial, maritime, army and navy, chemical, petroleum, synthetic rubber—a prime attribute is lasting quality . . . that inherent quality that comes of correct engineering, simplicity of design, and "know-how" manufacturing born of long experience.

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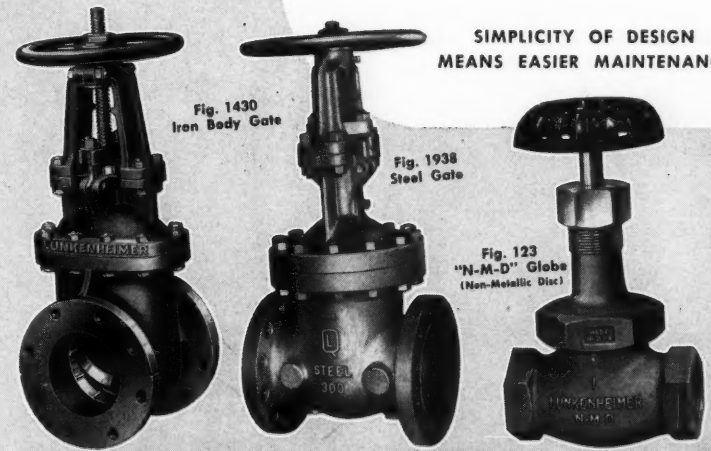


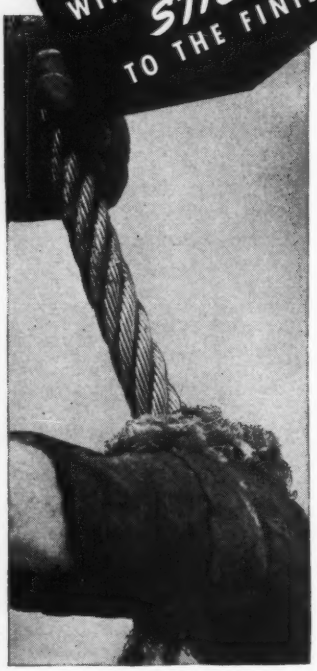
Fig. 1430 Iron Body Gate

Fig. 1938 Steel Gate

Fig. 123 "N-M-D" Globe (Non-Metallic Disc)

BRONZE, IRON, STEEL AND CORROSION RESISTANT ALLOY VALVES, 125 TO 2500 LB. S.P.;
BOILER MOUNTINGS, LUBRICATING DEVICES, AIRCRAFT FITTINGS

Our troops inspect a captured Axis tank, looking for booby traps.
INTERNATIONAL NEWS PHOTO



Every battle is a showdown . . . our men, weapons and equipment against the enemy's . . . gasoline, oil and *wire rope* included. That's why our forces need the best rope they can get . . . *and lots of it.* Below are some of the ways in which *you* can help to send more wire rope over there by making your own wire lines *last longer* over here:

1. Start with the correct wire line; for modern high speed drilling, a rotary line should be *preformed.* Use enough parts for loads to be handled, making sure that rope diameter matches sheave grooves.

2. Check equipment thoroughly. Repair or replace worn, corrugated or wobbly sheaves. Inspect drums for roundness.

3. Install line carefully. Avoid kinking when unreeling and handling. Spool evenly on drum, under tension, and keep line tightly wound.

4. Break in a new line cautiously, gradually increasing speeds and loads. Rope life is greatly prolonged by smooth starts and stops . . . reasonable speeds . . . frequent examination of rope, sockets, clips and splices.

5. Care for your rope. Clean and lubricate regularly. Many drillers change the position on the drum at intervals, and cut off short lengths, to distribute wear. Get posted on other practices by sending for our free "Drillers' Wire Rope Hand Book."

One thing more: Use a wire line of known stamina and dependability. *Preformed* Yellow Strand combines flexibility, toughness, elasticity and strength in proper balance. It stays on the job . . . curtails replacements . . . helps you keep manpower and equipment producing—for Victory.

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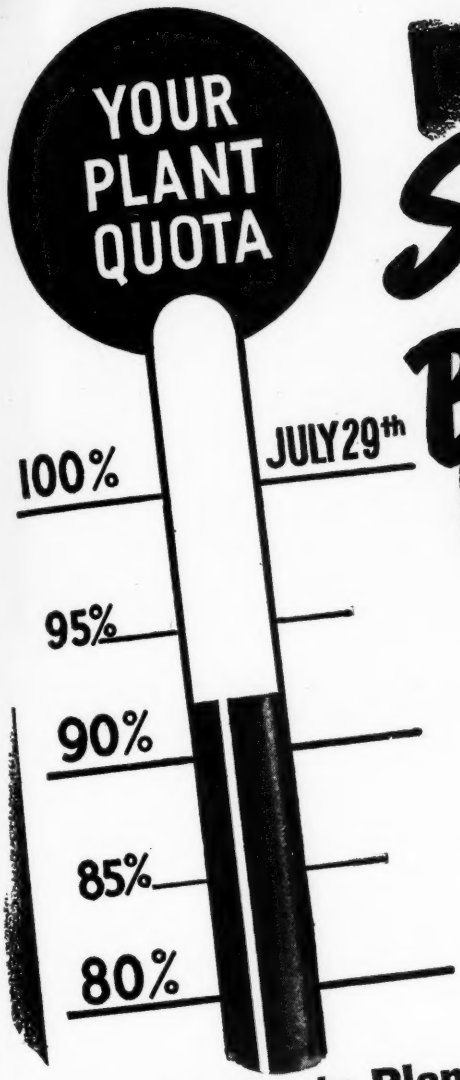


Stay at Your Battle Stations!

MANAGEMENT • LABOR

—the 5th War Loan Drive is still on.

July 29th is the last pay day in the Drive.

The U. S. Treasury has set the overall goal at $16,000,000,000 —$6,000,000,000 from individuals alone. This is the biggest sum ever asked of the American people—*and it must be raised!*

Keep fighting. The 5th War Loan is a crucial home front battle of tremendous importance to the total war effort.

Tighten up your 5th War Loan Drive organization. Step up your solicitation tempo. Drive! Drive!! Drive!!! Hit your Plant Quota's 100% mark with a bang that'll proclaim to all the world that the U. S. Home Front is solidly in back of the Fighting Front.

Need help? Need ideas? Call on the Chairman of your War Finance Committee. He's standing by.

Here's the Quota Plan:

1. Plant quotas are to be established on the basis of an *average* $100 *cash* (not maturity value) purchase per employee.
2. Regular Payroll Savings deductions made during the drive accounting period will be credited toward the plant quota.
3. Employees are expected to contribute toward raising the cash quota by buying extra 5th War Loan Bonds: 1—Outright by cash. 2—By extra installment deductions. 3—By extra installment deductions plus cash.

Example: JOHN DOE MFG. CO.—1,000 Employees

1,000 Employees x $100 . . $100,000 Cash Quota

Regular payroll deductions during the eight weekly payroll accounting periods of June and July. 30,000

$70,000 (to be raised by sales of extra Bonds).

BACK THE ATTACK—SELL MORE THAN BEFORE

The Treasury Department acknowledges with appreciation the publication of this message by

CALIFORNIA OIL WORLD

★ ★ *This is an official U. S. Treasury advertisement—prepared under the auspices of Treasury Department and War Advertising Council.* ★ ★

Plant inspection party, Distillate Products Co. plant, North Houston, TGeorge Gudenrath, Vic Jackamini, Reed Garman, Ed Hud exas April 10, 1944: Left to right standing: Ronnie Heath.son, Phil Magruder, Harry Evans, Jack Flaits, Clyde Peter. Front row, left to right: Henry Wade, C. L. Parkhill, George Tyler, Walter Dayhuff.

Gulf Coast Cycling Plant Visited by C.N.G.A. Party

Through the efforts of R. W. Heath, president of California Natural Gasoline Association, arrangements were made whereby a delegation of eight members of the Association enroute to the Annual Meeting of the Natural Gasoline Association of America at Dallas, Texas, were afforded an opportunity to inspect three high pressure gasoline plants in the Houston area.

Plants of the Distillate Products Company at North Houston, Humble Oil Company at Katy and Superior Oil Company at Lake Creek were visited and found highly interesting. The meeting at Dallas gave the group an opportunity to meet many old friends and to hear many worth while papers on topics of interest to natural gasoline men.

Making the trip from Los Angeles were: W. C. Dayhuff, California Research Company; Clyde Peter, Belridge Oil Co.; Harry Evans, The Fluor Corp., Ltd.; P. S. Magruder, General Petroleum Corp.; R. W. Heath, Signal Oil & Gas Co.; R. W. Garman, Dist. 5, P.A.W.; C. L. Parkhill, Parkhill-Wade; George L. Tyler, Secretary, C.N.G.A.. Other C.N.G.A. men joining the party at Dallas were R. D. Gibbs, Union Oil Co.; A. J. L. Hutchinson, The Fluor Corp., Ltd.; Henry N. Wade, Park-Hill-Wade; S. F. Magor, Superior Oil Co.

Meter Association Announces New Members

The Southern California Meter Association announces three new admissions to their membership. They are R. H. Clarke, Richfield Oil Co.; R. N. Brown, Union Oil Co.; and F. W. Geyer, Dow Chemical Co.

S.C.M.A. now has a total of 250 members. It was founded for the purpose of providing a meeting ground for the consideration of meters and measurement and regulation problems. T. K. M. Smith of the Pacific Lighting Corporation was the founder and first president. Meetings are held regularly on the third Thursday of each month at the Rio Hondo Club, 607 North Old River School Road, Downey.

Tivit Products Announces Expansion

Tivit Products, Inc. has purchased the Torrance Steam Cleaner Company and moved its main offices to the Torrance factory at 1026 Engracia Avenue, Torrance, California.

Tivit continues the manufacture of Torrance Steam Vapor Cleaners in addition to its own steam machine and the full line of specialized equipment which Tivit has developed for metal processing and cleaning.

Bruce Wiswall and M. P. Greffoz, executives of the original Tivit Company, retain their positions as General Manager and Production Engineer. L. B. Buckley, Torrance Plant Superintendent, has been appointed Plant Superintendent for the combined organization.

U. S. Refining Invests 525 Million

Since outbreak of the war the U. S. petroleum industry has invested $525,000,000 of its own money in new refinery equipment.

BUY

WAR BONDS

New Plant Speeds 100-Octane Production

A new, large catalytic hydrogenation plant—the first of its type in the nation—is now producing a vital ingredient of 100-octane gasoline at Shell's Wilmington-Dominguez refinery, according to an announcement by F. S. Clulow, vice president in charge of manufacturing, Shell Oil Company, Incorporated.

Using a process developed in Shell research laboratories, a high quality aviation gasoline component is made directly from raw materials which otherwise would be of little value in the war effort. This plant doubles Shell's output of this particular kind of 100-octane ingredient, and is another of the oil company's newest contributions to our victorious fighting men in the air.

Gunstock requirements are cutting into walnut forestry reserves. Trees that took 250 years in the growing have been cut down for war use; the trunk of one such ancient, weighing more than 16 tons, made nearly 1,000 rifle stocks.

Junior A.I.M.E. June Meeting

On June 8, 1944 the Junior A.I.M.E. held a very successful meeting at the Rio Hondo Country Club near Downey. Dr. Tom Clements, head of the Geological Department at the University of Southern California, spoke to 62 members and guests on the application of aerial photography to oil field exploration. For several years Dr. Clements has been teaching courses in aerial photography to members of the armed services and it has been included in the geology curriculum at U. S. C.

Aerial photography is not new to the oil industry. Started during the last war it developed greatly during the 30's and its use has multiplied rapidly in the present war. Two general applications of photographs are construction of highly accurate maps and reconnaissance. Stereoscopically viewed pictures are of great value in determining the types of geologic formations existing in an area and their accessibility to field parties. Some South American countries are very advanced in the use of aerial photographs for mapping.

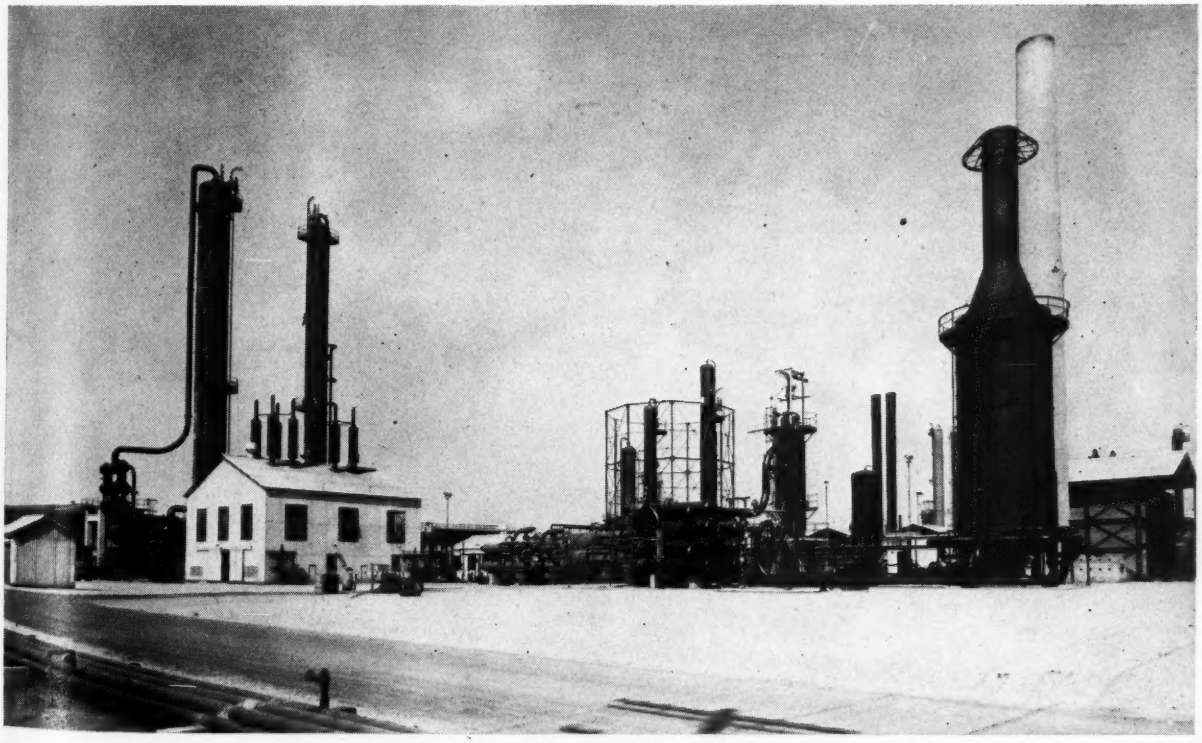
Dr. Clements presented very interesting pictures illustrating various geologic features and pictures of damage inflicted on the enemy in Italy, Germany and Wake Island.

Cracking Efficiency Increases

Since the advent of the Burton cracking still in 1912, improvements in cracking have increased the production ratio of gasoline to crude oil from 13% in 1912 to 45% in 1939. Today some refineries are obtaining a 70% yield of gasoline.

Do you know that a large quantity of cocoanuts are grown along the Puerto Rican coast and the dried copra is exported? Charred cocoanut shells are also shipped from there for use in gas masks. The cocoanut palm is the world's most valuable tree and has over 1,000 uses.

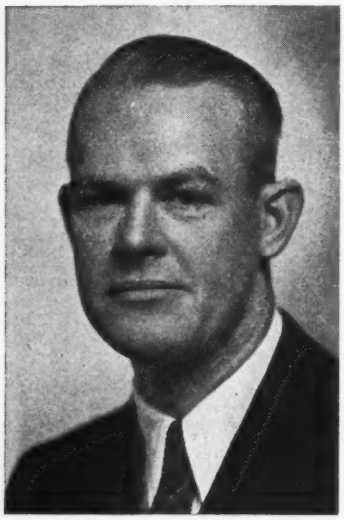
BUY WAR BONDS



Shell's new $3,500,000 catalytic hydrogenation plant at the Wilmington-Dominguez refinery. This plant is now producing a vital ingredient of 100-octane gasoline by a new process developed in the company's research laboratories.

Henderson Advanced by Western Gear

Western Gear Works announces the appointment of Glenn E. Henderson to head up the Sales and Service of Oilfield equipment manufactured or serviced by Western Gear Works. In addition to his former capacity, he has now assumed the Oilfield duties and responsibilities previously handled by William G. Corey who recently opened an Engineering Consulting Office,



Glenn E. Henderson

though keeping his association with Western Gear Works.

During the last ninety days Mr. Henderson has been devoting his full time to an intensive study of production methods of manufacturing and engineering of Pacific pumping units in the Lynwood plant. He feels that his absence from Sales duties in the past three months, which has inconvenienced some customers, will be more than compensated for by a closer picture of the customer's needs and an increase in the production of the Western Gear Works Oilfield equipment.

Mr. Henderson has been in the Sales Division of Western Gear Works for several years, and associated with the oil industry in California for the past 24 years. He is a member of both the national API and the local Long Beach chapter; also he was recently inducted as a member of the Nomads.

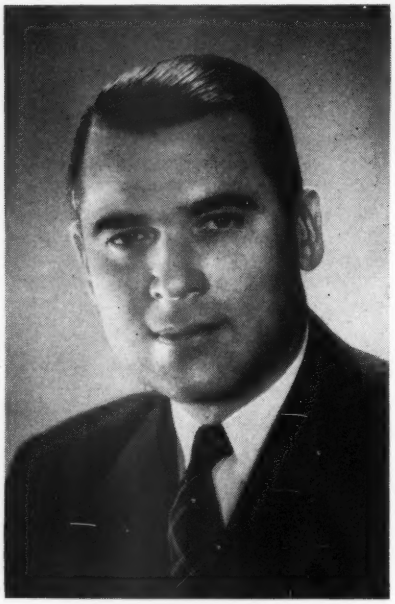
Mr. Henderson's office will be at the Western Gear Works' Commercial Offices at 11181 Long Beach Boulevard, Lynwood, California.

Rolling Hills "Cat" Coring

Approximately two miles south of the Torrance field, on the north flank of the Palos Verdes hills, Hunsaker and Atha are coring H. & S. No. 5-4, below 2800 ft. Located in section 27-4s-14w, the well is reported to have drilled thru a fault and to be in Pliocene shale showing vertical dips.

Thompson Advanced by Standard Oil

Appointment of E. D. Thompson as general manager of dealer sales for Standard of California, a newly created position, was announced on June 7th by E. J. McClanahan, vice-president of the company. In his new post he will have charge of all the company's retail business with the exception of company-operated service stations.



E. D. Thompson

Thompson, former assistant general sales manager and for five years advertising manager of the company, went to work for Standard in 1916. He has held sales positions in various Pacific Coast cities, including Fresno, Whittier, Seattle, and Oakland. In 1920 he became city sales superintendent in Oakland.

Assisting Thompson are R. N. Aldrich, development consultant; F. C. Eachus, manager, development division; and W. A. Frazer, manager, merchandising division.

Duhig Now Manufacturer's Representative

Mr. A. G. York, Vice President of The Watson-Stillman Co., Roselle, New Jersey, announces the appointment of Walter L. Duhig as Pacific

Walter L. Duhig

Coast Agent for the Company's Distributor Products Division.

The Watson-Stillman Co. manufactures a complete line of Forged Steel Pipe Fittings in Carbon Steel, Carbon-Moly, 4-6 Chrome, 18-8 Stainless and Nickel steel for extremely low temperatures.

In addition, Mr. Duhig will represent Watson-Stillman on their line of Hydraulic Valves, High Pressure Hand Pumps, Hydraulic Jacks, Wire Rope Shears and Portable Pipe Benders.

Watson-Stillman products are sold through selected distributors and are widely accepted by Refining and Production people.

Mr. Duhig enters his new field after more than twenty years in the Oil Well supply business, and has many friends in the Industry. He has established offices in the Van Nuys Building, Los Angeles.

Pittsburgh Equitable Meter Company and Merco Nordstrom Valve Company Personnel Changes

H. Boezinger, Vice President, Merco Nordstrom Valve Company and District Manager, Pittsburgh Equitable Meter Company, announces the following changes in their Pacific Coast offices:

H. Boezinger

E. H. "Ernie" Adams, well known in the Los Angeles Basin Oil Fields has been appointed Assistant District Manager and will operate out of the Pacific Coast District Office located at Los Angeles. R. L. Ford, formerly located in the Seattle Office has been transferred to the Los Angeles District Office where he will handle the sale of Water Meters in Southern California. Gilbert Bowman has been placed in charge of the San Francisco Office. Frank Tangney, formerly with the National Meter Company, which was acquired in 1914 by Pittsburgh Equitable Meter Company, has been placed in charge of Pittsburgh's Seattle Office. Sales Headquarters for the Pacific Coast of both Merco Nordstrom Valve Company and Pittsburgh Equitable Meter Company are located at Los Angeles.

Mr. Boezinger also announces the installation of additional Oil, Gas, Gasoline and Water Meter test, repair and service facilities at their Los Angeles plant to better serve the Pacific Coast area.

When the Temperature hits 2000° on a Hot Unit
Insulation must stand up or...
Hell breaks loose!
Over $175,000,000 of aviation gasoline refineries in Southern California alone are being insulated by MARINE. Some of the hot units of these plants involve temperatures of 900° to 2000° F. The engineers and contractors on these plants can't take chances. They must avoid every possible risk. Insulation must stand up. That is why they specify MARINE. They know MARINE insulation is custom-engineered to the job and backed by a record of success in countless industrial applications. One of our representatives will gladly discuss your insulation problems.
Marine
EVERYTHING IN INSULATION
ENGINEERING & SUPPLY COMPANY
941 EAST SECOND ST. • LOS ANGELES • MICHIGAN 8071

Colonel Fred E. Foster

Colonel Fred E. Foster, 60, Managing Director of the California Oil and Gas Association since 1935, died of a heart attack on June 14th.

Prominent in the petroleum industry since coming to Southern California a quarter of a century ago, Mr. Foster had been associated with numerous oil companies.

He was formerly manager for the Sunset Pacific Oil Co., Golconda Petroleum Co., California Eastern Oil Co. and Santa Maria Oil Fields, Inc.

A graduate of Carnegie Institute of Technology, where he was first captain of the school's football team, Mr. Foster helped in construction of the Panama Canal.

During World War I he served with the 12th Engineers, seeing service in France, where he attained the rank of lieutenant colonel. He fought at the Somme and Cambrai, was wounded and received the Purple Heart award for gallantry in action.

He was a member of the Army and Navy Club, Jonathan Club, Santa Monica Swimming Club and Sons of the American Revolution. He was a Shriner and a 32nd Degree Mason.

Funeral services were conducted on June 17th. Active pall bearers were: J. B. T. Campbell, Percy Carpenter, David Kilgour, R. E. Larson, Floyd Maxwell, Richard Mullinaux, Charles Stanley and Torrey Webb.

Besides his widow Jessie, he leaves a son, Lt. Fred Foster, Jr. of the Marine Corps, and a daughter, Mrs. Kendall Ellingwood.

Conservation Committee of California Oil Producers Holds Annual Meeting

Leading California oil men gathered for their annual meeting of the Conservation Committee in Los Angeles recently to plan operations in the Producing Division of the Industry during the coming year. This organization administers, through the Petroleum Administration for War, regulations affecting crude oil production. Chairman Warner Clark highlighted the meeting in an address to the members. He said in part—"The average citizen is much more oil conscious then he has ever been before. It is the old condition of missing the water when the well goes dry. He is interested in the future of the petroleum industry and the amounts of oil products which it can supply him. From all angles I am constantly running across the most optimistic reports and statements regarding our oil potentials as stored up in coal, lignite and shale. To be sure we do have large reserves in this form and they are well worth having but we should realize what it means to extract the oil which these substances contain. To give you a rough idea of the amount of shale which it would be necessary to handle to get out our present production in the United States, we would have to mine, cook and restack a pile of shale about the size of Mt. Shasta each year.

There is another matter which is very much in our minds these days and that is our relation to the Government. We need Government, but it should remain in the category for which Governments are instituted and that is to look after the common welfare and adjust differences between citizens. In other words, we need a Judge, but we do not need any more executives. It should take the judicial attitude and help us to settle our differences when we cannot agree to a solution ourselves. In other words, it comes back to whether the Government is a judicial agency controlling business in difficult times, or whether it is an executive running business at all times."

Mr. Clark stated he anticipated very strenuous times ahead when the war is over. That there are three controlling factors the answer to none of which is known. They are: When will the war end? What will crude production be when it does end? What will the market demand for petroleum products be?

Expressing his private opinion he said, "If I were allowed to guess, my estimate is that we would have to cut back about 200,000 barrels daily in crude output to reduce production to the market outlet at the end of the war."

J. A. Engstrand

Announcement is made by the Grant Oil Tool Company that J. A. Engstrand will leave the latter part of June on an extended trip in the interests of the Company. Engstrand will fly to Chicago, Washington, New York and Florida and then fly to Trinidad, Equador, Peru, Venezuela, Colombia and Brazil. The trip is expected to last four months.

Orange County "Cat" Abandoned

In the Westminster area of Orange county, Robert S. Lytle, Operator, has abandoned Green Wing No. 1. Located near the northwest corner of section 15-5s-11w, the hole was bottomed in Middle Pico shale at the total depth of 4561 ft. The well was running very low structurally and there were no showings of either oil or gas.

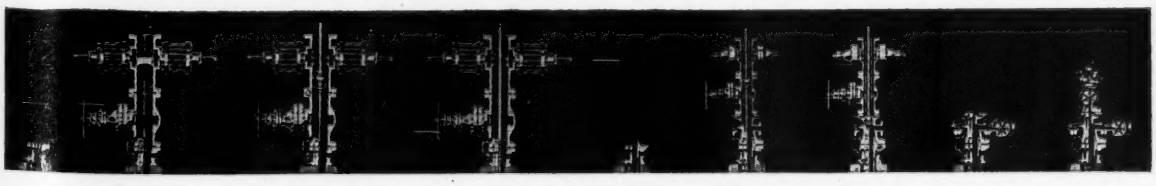
THE WHOLE IS GREATER THAN ANY OF ITS PARTS

AN ASSEMBLY *of well control equipment will be outstandingly efficient for a given territory and certain methods of operation, yet may be completely unadaptable to problems confronted in another territory, where operating conditions are different.*

★ **Gray Systems of Well Control have behind them careful study of the problems of a given territory and the methods of completion. Then the proper equipment, design and time of assembly in each step of the sequence of operations are made to fit the problems peculiar to that territory. Through anticipating and providing for all equipment needed on a particular job, and eliminating features not adaptable or needed, increased safety, convenience and economy are obtained.**

GRAY
TOOL COMPANY
HOUSTON

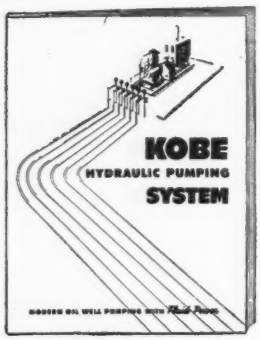
West Coast Distributor: WAGNER-MOREHOUSE, INC., Los Angeles. *Export Representative:* GUY E. DANIELS, 30 Rockefeller Plaza, New York City



Casing Head Attached | Drilling | Running Casing | Casing Landed | Drilling & Control Equipment Removed | Drilling-in and Running Tubing | Tubing Landed | Control Equipment Removed | Manifold Attached

Kobe Offers New Booklet

The growing use of hydraulic power for industrial purposes and in particular the story of modern oil well pumping with fluid power is the subject of a new booklet just published by Kobe, Incorporated, a pioneer manufacturer of hydraulic pumping systems, Huntington Park, California.



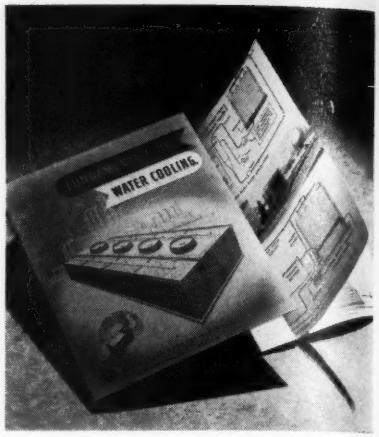
In language and pictures easily understood, this new booklet briefly outlines the simple steps in applying hydraulic power as illustrated by such familiar uses as the water wheel, fire engines and penstocks.

The booklet goes on to show how Kobe has adapted hydraulics to modern oil well pumping and gives a simple description of each step in the use of fluid power in the Kobe system. Typical Kobe installations in various producing areas are illustrated and many of the advantages of the hydraulic pumping method described.

This is the first booklet of its type ever produced on the subject of hydraulics and their application to oil well pumping and will prove interesting to field operators, engineers and executives alike. Copies may be obtained free from Kobe, Inc., Huntington Park, California, or from any Kobe field representative.

Marley Company Issues New Booklet

Engineers, maintenance men, designers, consultants, and all industrial users of water for cooling purposes will find a new 42-page booklet entitled "Fundamentals of Water Cooling" interesting and of practical value. It discusses basic principles, defines terminology, differentiates types of water cooling equipment and their respective advantages and limitations; then, in nutshell fashion, details the best modern practice in SELECTION, APPLICATION, and OPERATION of such apparatus. The book is profusely illustrated with photographs, diagrams, and drawings to make each point dramatically clear. Numerous flow charts show typical hook-ups.



It is both a pictorialized "refresher course" for the graduate engineer and an understandable working reference for the non-technical man, bringing readers abreast of latest ideas and developments. Available from The Marley Company, Inc., Fairfax and Marley Roads, Kansas City, 15, Kansas, upon written request on firm's letterhead.

Refinery Troubles Can be Reduced

with

Johnston Stainless Steel Welding Rods

Distributor:

ARIZONA WELDING EQUIPMENT CO.

230 S. Central Ave., Phoenix, Arizona

Captain Cecil L. Barton has returned to duty as Engineer with the Division of Oil & Gas at Los Angeles after 19 months with the Chemical Warfare Service of the United States Army. Capt. Barton was relieved from active Army duty for physical disability and is being warmly received by his many friends in the Petroleum industry.

THIS LAUGH OFF!!

Wife: "I wonder if I'll live to be a hundred?"

Hubby: "Not if you pause much longer at 40, dear."

A newly rich Irishman in street dress walked into an exclusive club the other night and one of the attendants called his attention to a sign, reading "Patrons must wear full evening dress." Pat squinted at it for a few minutes and then inquired disdainfully: "Who's smoking?"

Discussing the type of milk which should be supplied to school children, the chairman of the town's health committee said:

"What this town needs is a supply of clean, fresh milk, and we should take the bull by the horns and demand it."

A colored church was organizing a Society of Virgins. One applicant came up carrying a baby in her arms.

"But, Sister," queried the secretary, "how come yo' figger y' is able to join dis here society?"

"Well," replied the woman, "I was only foolin' when this happened an' I 'lowed as how I could get in as one of dese Foolish Virgins."

Man: "Going on a motor vacation this summer?"

Friend: "No, I'm going to take a Scotchman's vacation — stay home and let my mind wander."

Citizen: "I hear there's a movement on foot to weed out the unscrupulous lawyers in this town."

Lawyer: "An investigation has been made. It was found that there are no unscrupulous lawyers belonging to the bar here."

Citizen: "Who did the investigating?"

Lawyer: "We lawyers."

And according to Judge, a member of the WAAGS, named Fido, has asked to be transferred to another post.

A man ran into the barber shop, grabbed a customer by the arm and yelled in his lathered ear:

"Hey, McPherson, your house is on fire."

The customer jumped from the chair and without waiting to remove the towel from his neck or the soap from his face, dashed out the door and ran full speed down the street. After going a couple of blocks he pulled up suddenly and muttered:

"What the heck am I running for —I'm not McPherson."

A man called on the news editor of a local paper and announced that his uncle had been taking the paper for 55 years.

"That's fine," said the news editor. "I hope he'll continue to do so."

"Oh, yes, he will. I want to tell you about him. He has always been a model of propriety. He has never touched liquor or tobacco. He has never been mixed up with women. He indulges in no vices and no excesses. And tomorrow he will celebrate his 80th birthday."

"How?" asked the news editor.

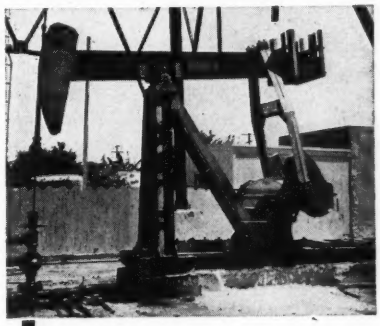
In Washington there is a mammoth war department building about which many stories are told playing up its size. One is about a very pregnant woman who approached a guard and asked to be guided out of the huge building.

"I can get you out all right," said the guard, "but I'm surprised that a woman in your condition should come into this enormous place." The woman smiled back. "Soldier," she said, "when I came into this building, I didn't know I was in this condition."

Sign in a bar: "In case of a blackout do not leave bar. You may be lit and not know it."

"I hear Jane is marrying a second lieutenant."

"Yeah, the first one got away."



RIGHT or WRONG, Mr. Producer?

We contend that any oil well is likely to be more profitable and satisfactory when pumped with a JENSEN Unit. We have worked to that end for almost 25 years, with the constant co-operation of customers everywhere.

Is that statement RIGHT or WRONG? Check it! Talk with owners. Ask Mr. Turner or The Oil Tool Corporation. See our Composite Catalog pages. Write for Bulletin No. 27.

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445 W. 6th, Downey, California
Phone: Topax 2-2410

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3075 Cherry Ave., Long Beach, Calif.
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JENSEN
BROTHERS MFG. CO.
Coffeyville, Kansas, U.S.A.

EXPORT OFFICE: 50 Church St., New York City

Field Development

Los Angeles Basin

Standard Stakes Surf Outpost

On the northerly edge of the Surf area of the Huntington Beach field the Standard Oil Co. has staked location for Surf Lease No. 2-2. The location reported is 1018 ft. south and 900 ft. east from the northwest corner of section 13-6s-11w. This falls about 1000 ft. north of the operators recently completed Surf Lease No. 2-1, which was drilled to the total depth of 8516 ft. and plugged back to 4402 ft. from where it is currently pumping at a fifty barrel per day rate.

L. B. Outpost Well Staked

The General Exploration Co. of Calif. has staked location for a wildcat well northwest of the producing limits of the Long Beach field. To be known as Dominguez No. 2, the well will be located approximately 700 ft. north and 1300 ft. west from the southeast corner of the Dominguez property, which places the hole near the north ¼ corner of section 14-4s-13w.

Shell Announces De Soto Test

The Shell Oil Co. has staked location for Alamitos No. 48, which is being drilled to test the De Soto zone south of the main Long Beach fault in the easterly portion of the field and will probably drill ahead to explore to the Schist. The location, which falls southeast of the Shell Co. office, is 270 ft. north and 365 ft. east from the interesection of the centerlines of Twentieth street and Obispo Ave. Other activity in the field shows The Texas Co. to be making preparations to drill a 7500 ft. hole on the Harlow Kent lease, while the derrick has been erected for well No. 8 on the Bauman lease.

Deep Test Fishing

Howard and Smith No. 3, deep test well of the Union Oil Co. in the Montebello field, is fishing drill pipe. Located northeast of the intersection of Beverly Blvd. and Maple Ave. on the southerly flank of the field, the well was drilled and cored to the total depth of 10,690 ft. where the drill pipe stuck on bottom. Attempts to free the drill pipe by circulating oil failed and the operator is now washing over and cutting out the fish. No showings worthy of a test have been found since deepening operations were started from 6385 ft. However considerable hard tight oil sand interbedded with streaks of shale and gray sand have been cored.

Outpost Encouraging

In its recently discovered westerly extension of the Rosecrans field, the Shell Oil Co. is preparing to test the second well in the area, Bank No. 3. The hole has been bottomed in oil sand and shale of the Eighth zone at the total depth of 8399 ft. A string of 7 inch casing was cemented over the Eighth zone at 8190 ft. and the operator is now preparing to place the well on production. The

LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Athens	J. Paul Getty, Westmore	1	2, 3-14	9108	Stdg. cem.
Aliso Canyon	Barnsdall-Bandini Pet. Co., Roosa	1	29, 3-16	9362	Testing
	Standard Oil Co., Frew	1-2	29, 3-16	9339	Testing
	Standard Oil Co.. Del Aliso	1	29, 3-16		Rig
	Standard Oil Co., Ward	3-1	27, 3-16	403	Drilling
Dominguez	Macmillan Pet. Corp., Carson	1	35, 3-13	5478	Drilling
Elysian	Seaboard Oil Corp., Park	1	9, 1-13	1455	Drilling
Las Llajas	Standard Oil Co., Brady Est.	2-1			Rigging up
Loma Verde	Shell Oil Co., Shell-Cont.	86-20	20, 5-17	6735	Drilling
Newhall	Pet. Expl. Co., Kraft	1	31, 4-15		Rigging up
Norwalk	Gen. Pet. Corp., Comm.	14-1	7, 3-11	6772	Drilling
Pico Canyon	Standard Oil Co., Pico Co.	42	1, 3-17		Rig
Puente	Alleghany Pet. Corp., Rowland	1	14, 2-10		Grade
	Hansen, Melvin, Corehole	3	24, 2-10	1898	Reaming
Rolling Hills	Hunsaker & Atha, H. & S.	5-4	27, 4-10	2745	Drilling
Rosecrans	Standard Oil Co., Bell Comm.	1	29 3-13	7236	Drilling
Turnbull Canyon	Capital Co., Cole	1	11, 2-11	2935	Stdg. cem.
	Capital Co., Baldwin	2	11, 2s-11w	405	Drilling
	Orange County				
Buena Park	Gen. Pet. Corp., Heath	1	34, 3-11	10500	Drilling
Costa Mesa	Lovelady & Frambes, Destiny	1	9, 6-10	1550	Fishing
E. Coyote	Barnsdall Oil Co., Sunny Hills	2	22, 3-10		Grade
Placentia	Providence Oil Co., Chapman	1	36, 3-10	3752	Drilling
Westminister	Lytle, R. S., Opr., Green Wing	1	15, 5-11	4561	Abandoned
	San Bernardino County				
Chino Hills	Chino Hills Oil Co., Kraemer	1	33, 2-8	1336	Idle
	Wm. Y. Lee, Corehole	2	21, 2-8	3005	Fishing bit
Soquel Canyon	A. F. McCain, Soquel	1	6, 3-8	167	Pre. to resume
	Imperial County				
Salton Sea	Pure Oil Co., State	1	26, 10-9	4412	Drilling
	Standard Oil Co., Southern Land Co.	1	27, 11-9	3917	Drilling

sands found in both the Seventh and eighth zones were reported to have looked very good.

Seal Beach Activity

This old field is again showing considerable activity with three projects underway along the fault on the northeasterly flank of the field, while plans are being formulated for one well on the southwest flank. Along the fault from northwest to southeast, the Standard Oil Co. has the derrick up for San Gabriel No. 29, farther to the southeast the Shell Oil Co. is moving in material for Bryant No. 5, and farther along the Hellman Estates has the rig up for well No. 8. On the southwest flank of the field the Capital Co. is preparing to drill a well on its recently acquired McGrath lease.

Aliso "Cat" Testing

Northwest of the westerly producing limits of the Aliso Canyon field the Barnsdall and Bandini Pet. Co. are testing their joint project, Roosa No. 1. Located in section 29-3n-16w, the hole is bottomed in Eocene oil sand at the total depth of 9362 ft. A string of 5½ inch casing froze and was cemented at 9329 ft. This casing is now being gun perforated and tested in stages from the bottom up, with the first test showing only normal drilling fluid.

Barnsdall Grading Second Sunny Hills Well

Approximately 1000 ft. south of their recent discovery well, Sunny Hills Ranch No. 1, the Barnsdall Oil Co. is grading location for Sunny Hills No. 2. The location reported is 1860 ft. south and 530 ft. east from the northwest corner of section 22-3s-10w. This location falls about ½ mile west of the producing limits of the East Coyote field. The well will be placed on production from the Stern zone.

Capital Co. Testing

In the Turnbull Canyon area of Los Angeles county the Capital Co. is making a series of production tests in Cole No. 1. Located in section 11-2s-11w, northwest of the Turnbull Canyon field the well was bottomed in hard Miocene shale at the total depth of 2935 ft. and plugged back to 2000 ft. A string of seven inch casing was cemented at 1835 ft. and the operator is testing several streaks of oil sand found from 1840 ft. to 2000 ft. There is no information available as yet on the results of the first test.

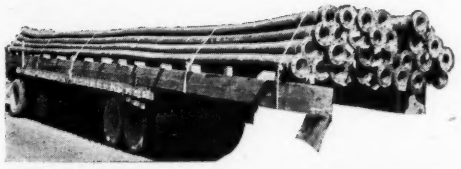
Getty Testing Potrero "Cat"

Approximately one mile south of the Potrero field, J. Paul Getty is preparing to test the O'Dea zone found in Westmore No. 1. Located in section 2-3s-14w, the hole was originally drilled to 8931 ft. and then redrilled in a southerly direction and deepened to 9109 ft, where the hole was bottomed in oil sand and shale after finding the top of the O'Dea zone at 8668 ft. A string of seven inch casing has been cemented at 8735 ft. and the hole is now being cleaned out preparatory to making a production test.

36 Years Experience + Vision for Tomorrow

Make "American Rubber" Products Timed for Today's Needs

It's this long experience . . . plus our practice of always looking ahead . . . that have enabled us to meet the emergencies brought about by this global war. Experience plus Vision have enabled us to develop Ar-Polene, the American synthetic, and to use it in such a manner that, in many cases, it is superior to natural rubber. Now, just as in normal times, you can depend upon "American Rubber" products for today's needs, and for tomorrow's.



Crackerjack Oil Suction and Discharge Hose has a cotton duck lining made with special oil-resisting compounds. That's one reason its use for both crude oil and gasoline is so general throughout the west.

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Superior Coring Shale

The Superior Oil Co. Houghton No. 47-35, second well in the operator's recently discovered field southeast of the Greeley field, is coring ahead in shale with streaks of gray sand below 8000 ft. Located near the south ¼ corner of section 35-29s-26e, the well found the top of the upper Stevens sand at 6528 ft. A formation test was made of this zone from 6530 ft. to 6628 ft., with the tester valve open for 1½ hours the well flowed clean 33 gravity oil at the rate of 2000 barrels per day. The operator is now coring ahead for a look at the lower Stevens sand. One location south of this well the company has graded location for Houghton No. 38-35. The Standard Oil Co. has three projects under way in the area, both to the north and to the south of the discovery well.

Texaco Abandons Fruitvale Test

In the northwest outskirts of the town of Bakersfield, the Texas Co. has abandoned KCL-Fruitvale No. 1 Located near the east ¼ corner of section 26-29s-27e, the hole was drilled and cored to a total depth of 4514 ft. Casing was set and the well tested in stages from 3159 ft. to 4402 ft. All tests recovered only water with very minor amounts of oil.

Texaco Testing Coalinga "Cat"

Approximately two miles east of the known producing limits of the Coalinga Eocene field the Texas Co. has plugged back and is testing S.P. No. 58-21. Located near the south ¼ corner of section 21-19s-16e, the hole was bottomed in Cretaceous shale at the total depth of 10,558 ft. after finding the top of this formation at 10,520 ft. The hole was plugged back to 9515 ft. and a formation test made of the zone between the shoe of the seven inch casing at 9490 ft. and the plug. The well flowed water at a 900 barrel per day rate after the tester had been open for 28 minutes. The operator is now preparing to plug and test higher.

Shell Wildcat Coring Shale

Northeast of the Oak Canyon field, on the Loma Verde anticline, the Shell Oil Co. is coring faulted shale in Shell-Continental No. 86-20. The well, which is located in section 20-5n-17w, is reported to be looking very discouraging due to the unexpected faulted condition of the formations encountered. The hole is now being spot cored ahead below 6700 ft.

Outpost Spudded

Approximately 2000 ft. north of the northerly producing limits of the Aliso Canyon field, the Standard Oil Co. has spudded Ward No. 3-1. Now drilling ahead below 1000 ft., the final location of the well is, 992 ft. south and 353 ft. east from the northwest corner of section 27-3n-16w. The operator will take a look at both the Porter and Sesnon zones.

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San Joaquin Valley

Tide Water Completes Buena Vista Well

The Tide Water Assoc. Oil Co. has completed well No. 86-K, for an initial rate of 600 barrels per day of 25 gravity oil, showing a cut of 24% and still cleaning up. The well was completed flowing thru a 20/64 inch bean with 400 pounds tubing pressure and 500 pounds casing pressure. Located in section 34-31s-23e, the well is the third to be completed in the recently discovered Miocene zone which has been named the 27-B sand. The top of this zone was found at 4210 ft. and the base of the oil sand at 4246 ft. The hole was drilled thru the oil sand and bottomed in shale at the total depth of 4324 ft. A string of seven inch casing was cemented at 4195 ft. and a 5½ inch liner landed at 4323 ft., with perforations open from 4204 ft. to 4245 ft. Derrick has already been erected by this operator for well No. 61-K, in this same section.

To the north the Standard Oil Co. has three projects drilling for the 27-B zone. In section 21, well No. 378-21B, is drilling in shale below 2200 ft. and in section 27, well No. 327-27B, is drilling below 1000 ft. while in section 35, well No. 302-35B, is drilling in shale below 3700 ft. In section 28, the Honolulu Corp. is coring oil sand in Caribou No. 28-35, after having found the top of the zone at 4210 ft. The Union Oil Co. McLeod No. 22, in section 34, is drilling in shale at 4150 ft. and will soon start coring for the top of the sand.

Eocene Well Completed

On the easterly flank of the Coalinga Eocene field the Standard Oil Co. completed well No. 7-17F, on the gas lift for an initial production of 680 barrels per day of 28 gravity oil showing a cut of 32% water. The hole was bottomed in shale at a total depth of 8069 ft. and a string of seven inch casing cemented at 7812 ft. Located near the southwest corner of section 17-20s-16e, the well is currently producing at the rate of 205 barrels per day while the cut has cleaned up to only 14% water.

Amerada To Redrill

In the Ant Hill area of Kern county the Amerada Pet. Corp. is preparing to redrill Ant Hill-S.P. No. 36-15. Located in section 15-29s-29e, the hole is bottomed in Schist at the total depth of 4159 ft A string of seven inch casing was cemented at 2170 ft. after plugging the hole back to 2210 ft. A formation test of the Olcese sand from the shoe of the seven inch casing down to the plug, recovered mud and water with a trace of oil. The hole was then plugged to 2180 ft. and a test made of the zone from 2170 ft. to 2180 ft. Only a small amount of fluid was recovered on this test and the seven inch casing was shot and pulled from 685 ft. preparatory to redrilling directionally to a more favorable structural position.

SAN JOAQUIN VALLEY WILDCATS

Area	Well	No.	Section	Depth	Status
	Fresno County				
Cantua	Seaboard-Pure Oil Co., Well	54-22	22, 16-13		Rigging up
Coalinga	The Texas Co., S. P.	58-21	21, 19-16	10558	Testing
Jacalitos	Standard Oil Co., Wells Fargo	1	30, 21-15	1658	Drilling
	Tide Water Assoc. Oil Co., Jacalitos	27-16	16, 21-15	3658	Testing
Lanare	Amerada Pet. Corp., Sample	F-22-15	15, 17-18	8155	Suspended
	Kern County				
Antelope	Shell Oil Co., Hopkins	57X-31	31, 27-20	2917	Pumping
Ant Hill	Amerada Pet. Corp.,Ant Hill,S.P.	36-15	15, 29-29	4195	Prep. to redrill
Arvin	Continental Oil Co., Derby	1	35, 31-29		Rigging up
Cymric	D. D. Dunlap, Fritz-Noel	1	20, 29-21	3233	Abandoning
	Rothschild-Bender Sheep Springs	1	17, 29-21	1720	Drilling
	Trico Oil and Gas Co., Trico	24-1	24, 29-21		Rig
	C.C.M.O. Co., Bates	2	20, 25-19		Rig
Devils Den	DeKalb & Foster, Le Baron	5	24, 25-18	1315	Drilling
Dyer Creek	Shell Oil Co., Inc., Glide	1	13, 26-27	2100	Drilling
Edison	Walker, F. G., Edi-Rita	1	12, 30-29	1708	Abandoned
Fruitvale	The Texas Co., KCL	1	26, 29-27	4514	Abandoned
Grapevine	M. Metzenbaum, Well	34-3	34, 11-19	2680	Shut in
Gosford	KCL Co., Cont. Oil Co.	J-1	17, 30-27	9303	Abandoning
	T. W. A. Oil Co., KCL	44-22	22, 30-26	7850	Drilling
Kern River	J. T. Wilcox, Zanetti	1	17, 28-28	3868	Idle
Maricopa	E. R. Bardwell, Well	1	23, 11-24	1100	Abandoning
McKittrick	Americal Pet. Corp., Americal	1	2, 30-21	5450	Redrilling
	Richfield Oil Corp., Olig	1	12, 30-21	2300	Idle
	Richfield Oil Corp., Olig	2	12, 30-21		Rigging up
Lost Hills	Standard Oil Co., Cahn	58-4	4, 27-21		Location
McVan	Butler Bros., Well	2	14, 27-27		Grade
	Morrison, B. C., Well	1	4, 27-27		Rigging up
Midway	C.C.M.O. Co., Well	G-3	20, 32-33		Rig
	Std. Oil Co., Ethel D. S.	1	36, 12-24	7966	Drilling
Mt. View	DiGiorgio Fruit Corp., Well	35-10	10, 31-29	6036	Testing
Poso Creek	Independent Expl. Co., Conoco	33	33, 27-27	1096	Drilling
Rio Bravo	Richfield Oil Corp., KCL-Goosloo	1	20, 29-25	10236	Testing WSO
Rosedale	Western Gulf Oil Co., KCL-A	37-14	14, 29-26	9570	Drilling
Round Mt.	Signal Pet. Co., S. P.	2	25, 28-28	1640	Drilling
Semitropic	Standard Oil Co., Fullerton	1	25, 27-23	5018	Drilling
Shafter	T.W.A. Oil Co., Shafter Comm.	86A-7	7, 28-25	8946	Drilling
Sheep Springs	Bender, E. A., A.-P.	1	19, 29-21	2072	Abandoned
So. Belridge	Bandini Pet. Co., Bacon	1	27, 28-20	4460	Drilling
Strand	Standard Oil Co., Robbins	45-35	35, 29-26		Rig
	Superior Oil Co., Houghton	47-35	35, 29-26	7928	Drilling
Stockdale	W.G.O. Co., KCL	77-5	5, 30-27	7706	Drilling
Sunset	T. W. A. O. Co., McBean	86-36	36, 12n-23w		Rig
Tejon	Richfield Oil Corp., S. P. 10	15-15	15, 11-19		Rig
Temblor	K & G Drilling Co., Well	1	25, 29-20	699	Idle
Ten Section	Richfield Oil Corp., Old River-KCL	1	3, 31-26	8079	Drilling
	Kings County				
Alpaugh	Standard Oil Co., Von Glahn	1	34, 23-22	1872	Drilling
	Madera County				
Firebaugh	The Texas Co., Moffat	47-1	1, 12s-14e	1455	Drilling
	The Texas Co., Moffat	55-7	7, 12-15	5694	Abandoned
	Merced County				
Los Banos	Shell Oil Co., Inc., Wolfsen	61-3	3, 9-11	1473	Drilling
	San Luis Obispo County				
W. Midway	Richfield Oil Corp., Temblor Hills Unit	1-1	36, 31-21	956	Drilling
	Tulare County				
Pixley	Barnsdall Oil Co., Lombardi	1	16, 23-26	4223	Drilling

Gosford "Cat" Abandoned

Southwest of the town of Bakersfield, in the Gosford area, the Continental Oil Co. has abandoned KCL Co.-Conoco Operator No. J-1. Located near the east ¼ corner of section 17-30s-27e, the hole was bottomed at the total depth of 9303 ft. There were no showings of oil or gas reported at any point in the hole.

Outpost Testing

Southeast of the known producing limits of the Mountain view field, the DiGiorgio Fruit Corp. is coring ahead in DiGiorgio No. 35-10, after making two formation tests of the Santa Margarita oil sand. The first was made of the interval 5890 ft. to 5940 ft. and the second of the interval 6005 ft. to 6036 ft. In both tests the recovery consisted of gas cut mud with a small amount of oil. Located in section 10-31s-29e, the hole is now being cored ahead in Santa Margarita oil sand and siltstone below 6040 ft.

Dunlap Abandons Cymric "Cat"

In the Cymric area, approximately three miles southwest of the South Belridge field the D. D. Dunlap Oil Co. has abandoned Fritz-Noel No. 1. Located in section 20-29s-21e, the hole was bottomed in shale with streaks oil sand at the total depth of 3233 ft. Streaks of poor oil sand and shale were found almost continuously from 1500 ft. to bottom. The well caused a small amount of excitement when it blew out while standing idle prior to starting abondonment operations. The well died after blowing a small amount of mud and sand from the hole.

Richfield Testing McKittrick Outpost

Approximately four miles northeast of the McKittrick field the Richfield Oil Corp. is testing Olig No. 1. Located near the northeast corner of section 12-30s-21e, the hole was bottomed in shale at the total depth of 2300 ft. after coring shale with streaks of oil sand from about 500 ft. to bottom. The hole was plugged back to 1420 ft. and a string of 8⅝ inch casing cemented at 1400 ft. A 6⅝ inch liner including 40 ft. perforated was landed at 1419 ft. and the hole tested by bailing. The recovery to date has consisted of only a small amount of heavy oil. The operator is preparing to move the drilling rig approximately 1000 ft. due south where foundations have been built for Olig No. 2.

Deep Test Continues

The proposed super deep test well of the Standard Oil Co. Ethel D.S. No. 1, is spot coring ahead below 8000 ft. Located in section 36-12n-24w, northeast of the town of Maricopa, the hole is classified by the operator as a "restricted well" which in the vernacular of the oil fields is the up town way of saying "no dope".

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Coastal and Northern Districts

Standard Fishing

Northwest of the town of Fillmore the Standard Oil Co. is fishing drill pipe in Fillmore Comm. No. 2-1. Located in section 24-4n-20w, the well has been drilled and cored to the total depth of 14,512 ft., where the hole was lost while reaming. The hole was cleaned out and redrilled to 12,863 ft., where the drill pipe froze and could not be loosened by circulating with oil.

Honolulu Completes Rincon Producer

The Honolulu Oil Corp. Whitten Permit No. 56-9 was completed from the Miley zone for an initial production of 320 barrels per day of 27 gravity oil showing a cut of 4 per cent mud, flowing through an 18/64 inch bean with 150 pounds tubing pressure and 740 pounds casing pressure. The gas production was gauged at 356 MCF per day. Located on the Whitten pier in section 7-3n-24w, the hole was bottomed in shale and gray sand at the total depth of 3783 ft. and plugged back to 2829 ft. A string of nine inch casing was cemented at 2710 ft. and a 5½ inch perforated liner landed at 2828 ft. The well is currently flowing 260 barrels of oil per day through a 15/64 inch bean, with 225 pounds tubing pressure and 750 pounds casing pressure and 207 MCF of gas.

Ventura Ave. Completion

On the northerly flank of the Ventura Avenue field the Tide Water Assoc. Oil Co. has placed Lloyd No. 139 on production. The well was bottomed at the total depth of 10,451 ft. and a string of seven inch casing cemented at 9951 ft. A five inch liner including 522 ft. perforated was landed at 10,450 ft. and the well swabbed after hanging three inch tubing at 9800 ft. On the initial gauge the well produced at the rate of 1060 barrels per day of 30 gravity oil showing a cut of seven per cent. The flow was through a two inch bean with 75 pounds tubing pressure and 650 pounds casing pressure.

Shell Co. Testing

The Shell Oil Co. is running a series of formation tests in Heidorn No. 1. Located on section 4-1n-2e, in the Neroly area of Contra Costa county, the hole was bottomed in gray sand and shale at the total depth of 4048 ft. A formation test made from 3925 ft. to bottom recovered a small amount of mud and water. The hole was plugged and a second test made of the interval 3690 ft. to 3735 ft. With the tester open for one hour, 850 ft. of mud and water entered the drill pipe. The operator will continue to plug and test up the hole. At this writing there is no information available as to the age of the formations being tested.

Anderson Stakes Second Los Alamos Try

The joint test of J. I. Anderson and the Southern Calif. Pet Corp., Archambeault No. 1, has been indefinitely suspended after attempts to redrill the hole failed. The operators are now preparing to move the rig 660 ft. due south where location has been staked for Archambeault No. 2. Located in section 3-7n-32w, Archambeault No. 1, was drilled and cored to a total depth of 4765 ft., where the hole was bottomed in hard cherty shale showing 65 degree dips. The hole was plugged to 1170 ft. and several attempts made to direct the well to the south of the surface location. The hole was redrilled to 2500 ft. but was suspended as the desired direction could not be maintained.

Texaco Stakes Santa Rosa "Cat"

In the Santa Rosa Ranch district of Santa Barbara county, the Texas Co. has staked location for Petan No. 2. Located in section 20-6n-32w, the well will go down approximately 660 ft. due south of Petan No. 1, which was abandoned last year at the total depth of 1742 ft. after failing to find the objective Eocene sand.

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
	Santa Barbara County				
Cat Canyon	Richfield Oil Corp., Los Flores	1	10, 8-33	5092	Drilling
E. Cat Canyon	Union Oil Co., McNee, C. H.	2	20, 9-32	3400	Drilling
	Union Oil Co., McCroskey, C. H.	1	20, 9-32		Foundation
Lompoc	S. R. Williams, Fickert	1	8, 7-33	3435	Fishing
Los Alamos	J. I. Anderson & So. Calif. Pet. Corp., Archambeault	1	3, 7-32	4765	Suspended
Los Olivos	Hub Oil Co., La Laguna	1	7, 7-30	3580	Rigging up
Purisima	Whittier Assoc., Barham	2	11, 7-32		Rig
Sta. Rosa Ro.	The Texas Co., Peton	2	20, 6-32		Grading
	Ventura County				
Devils Anticline	Shell Oil Co., Rogers C. H.	B	22, 5-18	937	Drilling
Eureka Canyon	El Rika Oil Co., Well	7	33, 4-18		Location
Fillmore	Standard O. Co., Fillmore Comm.	2-1	24, 4-20	14512	Fishing D.P.
Oxnard	Hub City Pet. Co., Chase	1	6, 1-21	2653	Pumping
Piru	Delroy Pet. Corp., Lisk	3	22, 5-18	3149	Idle
	Standard Oil Co., Bowman	2-1	14, 4-18	6336	Drilling
Sespe	Volunteer Pet. Co., Tar Creek	3	28, 5-19	2168	Drilling
	Merchants Pet. Co., Well	9	1, 4-20		Location
Simi	Mayo Oil Co., Montgomery	1	16, 2-18	4000	Idle
South Mt.	Pac. West O. Corp., M. Richardson	1	24, 3-21	1626	Drilling

NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Butte	Richfield Oil Corp., Hamilton-Nord	1	9, 22n-1w		Rig
Colusa	Standard Oil Co., Princeton	1	24, 18n-2w	1910	Drilling
	Union & Gen. Pet. Corp., Azro	1	10, 16n-1w	3018	Testing
Contra Costa	Shell Oil Co., Heidorn	1	4, 1n-2e	4048	Testing
San Benito	Panoche Pet. Co., Panoche	1	24, 16s-10e	600	Drilling
San Joaquin	Standard Oil Co., Fair Oaks	A-1	19, 1n-7e	5156	Drilling
	Standard Oil Co., Gerhart	1	24, 2s-5e	5564	Drilling
San Luis Obispo	Los Nietos Co., Lowther	1	5, 32s-13e	3421	Abandoned
Solano	Standard Oil Co., Suisun	3	5, 3n-1w	3617	Drilling
	Standard Oil Co., Fontana	1	23, 3n-1w	3462	Drilling
Tehama	Richfield Oil Corp., Gallitan	1A	26, 25n-3w	2164	Drilling
	Superior Oil Co., Saldubehere	1	12, 24s-3w	3244	Drilling
	The Texas Co., Jelly-Bend	18-8	8, 29n-2w		Grading

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Union Testing Colusa "Cat"

In the Colusa area of Colusa county the Union Oil Co.-General Pet. Corp. are preparing to test Azro No. 1, joint test well in section 10-16n-1w. Bottomed in Cretaceous shale at the total depth of 3018 ft. the hole has now been plugged to 1783 ft. and the operator is conditioning the well preparatory to testing a sand which is thought to be either a part of the Cretaceous white sand or may be a sand in the lower portion of the Eocene formation. The interval to be tested is from 1750 ft. to 1783 ft. Approximately three miles south of this well the Union Oil Co. and the General Pet. Corp. are making preparations to drill a second joint test which will be known as Capital No. 2. This well will be located near the west ¼ corner of section 27 of the same township and range.

Hub Oil Co. to Resume

Approximately three miles northeast from the town of Los Olivos, the Hub Oil Co. is rigging up preparatory to deepening La Laguna No. 1. The well was suspended last year in siltstone of Sisquoc age at the total depth of 3580 ft. The operators present plans call for deepening the hole into the Monterey Chert zone. Location of the well falls in section 7-7n-30w.

Outpost Coring

Approximately 1500 ft. south of the southerly producing limits of the South Mountain field, the Pacific Western Oil Corp. is coring ahead in Sespe shale below 2000 ft. in Richardson Estate No. 1. Located in section 24-3n-21w, the well has the sands of the Eocene formation as the objective.

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